ಕರ್ನಾಟಕ ಸರ್ಕಾರ

ಶಾಲಾ ಶಿಕ್ಷಣ ಮತ್ತು ಸಾಕ್ಷರತಾ ಇಲಾಖೆ

ಪಾಠ ಆಧಾರಿತ ಮೌಲ್ಯಾಂಕನ ಸಾಮಗ್ರಿ

2025-26

ವಿಷಯ - ಪರಿಸರ ವಿಜ್ಞಾನ

ತರಗತಿ - 5

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ರಾಜ್ಯ ಶಿಕ್ಷಣ ಸಂಶೋಧನೆ ಮತ್ತು ತರಬೇತಿ ಇಲಾಖೆ,

ಬನಶಂಕರಿ 3ನೇ ಹಂತ,ಬೆಂಗಳೂರು -560085

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ಜಿಲ್ಲಾ ಶಿಕ್ಷಣ ಮತ್ತು ತರಬೇತಿ ಸಂಸ್ಥೆ,ಬಳ್ಳಾರಿ

Department of School Education and Literacy

Lesson Based Assessment Materials

2025-26

Subject : Environmental Studies

Class : 5th Class

Concept and Guidance

Smt. Rashmi Mahesh V, IAS
Principal Secretary to Government,
Department of School Education and Literacy.

Dr. Trilok Chandra K. V, IAS Commissioner, Department of School Education, Bangalore	**Sri Gopalakrishna H N,** Director, DSERT, Bangalore

Diet cooperation

Mr. O.R.Prakash **Principal** Diet. Bellary	**Sri Prabhuraja S.Patil** **Mentor** Lecturers, Diet.Bellary

Composition

Smt. Radha P.,
Senior Assistant Director,
DSERT, Bangalore

Lesson Based Assessment Material Creation Resource Team

1. Smt. Hemalatha, S.Ma.He.Prof.School, G.T.Street.Bellary.
2. Smt. Renukamma.H, S.He.Prof.School, Kuduthini.
3. Smt. Jnaneshwari.K, S.He.Prof.School, Guggara Hatti.
4. Smt. Kavitha, S.K.Prof.School, Parvati Nagar.
5. Sri Murugaraja Sonnada, S.Ma.He.Prof.School, Ramanagara.
6. Shri Dhanyakumar.J, S.K.Prof.School, Gosai Camp, Hospet.
7. Shri L.Parameshi, S.;He.Prof.School, Kabberpet, Hospet.
8. Shri Ramaprasad.B, S.He.Prof.School, B.T.R.City, Hospet.

Mentors and Examiners

Shri Suresh Babu.S.R **Senior lecturers.** **Diet.Bellary**	**Smt. Lakshmi Sastry** **S.K.Prof.School.Hommadevanahalli.** **Bangalore South**

State Department of Education Research and Training
Banashankari 3rd Stage, Bangalore-560085
and
District Institute of Education and Training. Bellary

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Lesson-1. Living World

Learning Outcomes:

After studying this lesson, students will be able to:

1. Differentiate between living and non-living things
2. List and explain the characteristics of living things
3. Classify organisms into plants and animals
4. Describe how plants prepare their own food
5. Identify differences between plants and animals
6. Give examples of living and non-living things from daily life
7. Develop observational skills through nature-based activities
8. Demonstrate curiosity and respect towards living organisms
9. Participate in group discussions and activities related to the topic
10. Use appropriate scientific terms like respiration, reproduction, and movement

I. Choose the correct option and answer the following questions

1. The movement of human (Easy)

A.head

b.leg

C.hand

D.wing

2. Which gas do plants excrete in the process of respiration? (Easy)

A. Nitrogen

b. Oxygen

C. Carbon dioxide

D. Hydrogen

3. What is the average life span of a turtle? (Easy)

April 20

B.120

C. 100

December 150

4. Which of the following is a perennial plant (Easy)

A. coconut

b. wheat

C. Sugarcane

D. Pumpkin

5. What is the process of preparing food in plants called. (Easy)

A.Metabolism

b.Photosynthesis

C. Excretion Action

D. Respiration

II. Fill in the blanks

6. All living beings are made up of __________. (Easy)
7. The process by which green plants prepare food is called __________. (Medium)
8. __________ is a plant that catches insects . (Easy)
9. Animals that eat both plants and animals are called __________. (Easy)
10. The process of removing waste from the body is called __________. (Easy)
11. The basic unit of all living beings is __________. (Easy)
12. Mango and neem trees are __________ plants. (Easy)
13. Lion and tiger are __________ animals. (Easy)
14. __________ National Park is also known as Rajiv Gandhi National Park. (Easy)
15. __________ bird sanctuary is located in Karnataka. (Easy)
16. Those that have the characteristics of life in the environment are called __________. (Easy)
17. Animals ___________ plants and other animals for food . (Easy)
18. 5. Plants that flower during a year or a season and are destroyed after ripening are called __________ plants. (Easy)
19. The period between the birth and death of an organism is called ______________. (Easy)
20. Plants reproduce through seeds and ____________. (Easy)

III. State true or false to the following questions

21. Inanimate objects can move and grow. (Easy)

22. All animals prepare their own food. (Easy)

23. Drocera is an insectivorous plant. (Medium)

24. Plants do not excrete waste. (Easy)

25. Perennial plants complete their life cycle in a single season. (Medium)

26. Ranganathittu Bird Sanctuary is located in Karnataka. (Easy)

27. Bandipur is a biological park. (This is a national park) (Medium)

28. Human beings are carnivores. (Easy)

29. All organisms respond to stimuli. (Easy)

30. Respiration is called excretion. (Easy)

IV. 31. Match the following. (Medium)

a	B
1. Photosynthesis	A. Carnivorous
2. Cow	B. Mishrahari
3. Lion	S. Vegetarian
4. Man	d. Insectivorous plant
5. Drocera	c. Process of green plants

V. Answer the following questions (one-mark questions)

32. What is the basic unit of all living beings? (Medium)
33. Name a carnivorous animal. (Medium)
34. Which gas do plants use for photosynthesis? . (Easy)
35. Name one national park in Karnataka. . (Easy)
36. Give an example of a perennial plant. . (Easy)
37. What is the environment? (Easy)
38. What is the body of living organisms made up of? (Easy)
39. What is photosynthesis? (Easy)
40. What are heterotrophs? (Easy)
41. What is reproduction? (Easy)
42. Salamarada Thimmakka belongs to which district? (Easy)
43. Which gas do plants depend on to breathe? (Easy)
44. Give an example of insectivorous plants. (Easy)
45. What is solar energy? [(Easy)

VI. Answer the following questions (two marks questions)

46. Name two characteristics of organisms. (Medium)
47. Who are called vegetarians ? Give the example of a vegetarian. (Hard)
48. What is a bird sanctuary? Give the example of a bird sanctuary in Karnataka. (Medium)
49. Write any two differences between living and non-living things. (Medium)
50. What gas do organisms take in when they breathe in and which gas do they emit out? (Medium)

51. What are the four main factors that plants need to prepare food? (Medium)
52. What are the two benefits of eating food by living organisms? (Medium)
53. What is the growth of organisms? (Medium)
54. Why do animals move? Give any two reasons. (Medium)
55. What are the special organs present in animals to flush out waste materials? (Medium)
56. Mention the two ways in which plants reproduce. (Medium)
57. How do organisms respond to stimuli? Give two examples. (Medium)
58. Why is animal protection important? (Medium)
59. Why is it the responsibility of all of us to protect the environment? (Medium)

VII. Answer the following questions (three marks questions)

60. Write down the three characteristics of living organisms. (Hard)
61. Divide the following animals into herbivores, carnivores, carnivores: (hard)
    a. Lion, Cow, Bear, Dog, Mouse, Monkey
62. Define annual, biennial and perennial plants. Give an example of each one. (Hard)

VIII. Answer the following questions (four marks questions)

63. Explain the process of photosynthesis. (Hardest)
64. Explain the four characteristics of living organisms. (Hard)
65. Divide the animals on the basis of food activity. Give an example of each. (Hardest)
66. Why is it necessary to protect forests and wild animals? (Hardest)

IX. Project Work (Four Marks Questions)

67. Collect pictures of different animals and make them vegetarians, carnivores and hybrids.

Sort and prepare a chart. (Hard)

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Lesson – 2. Family

Learning Outcomes:

After learning this lesson, students will be able to:

1. Understand the importance of a family.
2. Describe the concept of a family tree and draw their own family tree.
3. Identify family members and their relationships based on symbols and signs (like □ and ○).
4. Differentiate between nuclear and joint families with suitable examples.
5. Recognize the changes in family structure over generations.
6. Compare different family types (own family, friend's family, etc.) and discuss their similarities and differences.
7. Explain the advantages and disadvantages of joint and nuclear families.
8. Understand the role of neighbors and community members in supporting a family.
9. Visit neighbors to collect and analyze data of family members through simple surveys (like number of family members, generations, relationships).
10. Demonstrate values such as cooperation, love, respect for elders, and responsibility learned through family life.
11. Express thoughts and feelings about their own family through discussion and activities.
12. Relate to real-life experiences of family roles in nurturing, education, care, and social bonding.
13. Engage in creative activities like singing, drawing, and storytelling to reinforce the concept of family.
14. Recognize how social, economic, and educational changes affect family structures in modern times.
15. Reflect on the emotional and functional role of families in individual development and social well-being.

I. Choose the correct option and answer the following questions

1 What is it called for two or more generations of people living in the same house? (Easy)

A.Joint Family

b. Small Family

C. Modern Family

D. Joint Family

2 What is the symbol used for males in the family tree? (Easy)

A. Circle

b. Triangle

C. Square

D. Oval

3 Which symbol is used to denote the relationship between parents and their children in the family tree? (Easy)

A. Horizontal Line

b. Vertical Line

C. Vertical lines below the horizontal line

D. Horizontal Line

4 What is one of the major benefits commonly found in joint families? (Easy)

A. There will be fewer members

b. Gets the love of Mutajja and great-grandmother

C. There will be a modern lifestyle

D.There will be no guidance

5 What are the reasons for changes in the nature of the family? (Easy)

A.Marriage

b. Employment

C. education

D. Community

II. Fill in the blanks

6. Members of a family are connected to each other __________. (Easy)
7. A family in which two generations are joined together is called a __________ family. (Easy)
8. A family in which multiple generations live together is called a __________ family. (Easy)
9. __________ tree is used to show the structure of the family. (Easy)
10. We should respect __________ and __________ in the family. (Easy)
11. In the family tree, __________ for males and __________ for females are used. (Easy)
12. There is no ____________ without family, no __________ without families. (Easy)
13. The number of members in a joint family is usually ______________. (Easy)
14. In a divided family, usually only ____________ generations live. (Easy)
15. The term family tree refers to the ______________ of the tree. (Easy)
16. Family improves the health and ______________ relationship of the members. (Easy)

III. State true or false to the following questions

17. All the members of the family are related to each other. (Easy)
18. In a joint family, there are only as many members as the joint family. (Easy)
19. The names of the daughters are written first on the family tree. (Easy)
20. We learn many qualities from family like care, love, cooperation, etc.(Easy)
21. A family of two generations is called a joint family. (Easy)

IV. 22. Match the Following (Medium)

a	B
1. Joint Family	a. Names of all members
2. Family tree	b. Two generations
3. Grandma	c. Support and love
4. Help from peers	d. Several generations of family
5. Joint Family	e. Mother's mother or father's mother

V. Answer the following questions (One-mark questions)

23. How many generations are there in a divided family? (Easy)
24. Give an example of a joint family. (Easy)
25. Which symbol is used to identify/denote men in a family tree? (Easy)
26. How many members are there in Prema's family? (Easy)
27. What values do we learn from family? (Easy)

VI. Answer the following questions (two marks questions)

28. What is a family tree? (Medium)
29. What is the difference between a nuclear/joint family and a compound/joint family? (Medium)
30. Write two sentences about the amenities/facilities of your family. (Medium)
31. What do you think of your friends' family? (Medium)
32. What are the two advantages of having elders in the house? (Medium)
33. Write any two symbols used to identify relationships in the family tree. (Medium)
34. What family functions are celebrated together? Give two examples. (Medium)
35. Why is the number of separated families increasing in modern times? (Medium)
36. Why is it important to have love and affection between family members?

VII. Answer the following questions (three marks questions)

37. If a friend's house is a joint/joint family, explain its characteristics. (Hard)
38. What qualities did you learn from your family? Give 3 examples. (Medium)
39. Draw the family tree of your house and identify the members of three generations. (Hard)
40. How do elders help in meeting the main needs of the family? (Hard)
41. Explain the role of neighbours in the family through the story of mother-in-law Razia Didi. (Hard)
42. Explain the changes taking place in the structure of the family from time to time. (Hard)
43. How can you introduce your family through the family tree? (Hard)
44. Explain the importance of compatibility, coexistence and cooperation that we learn from family. (Hard)

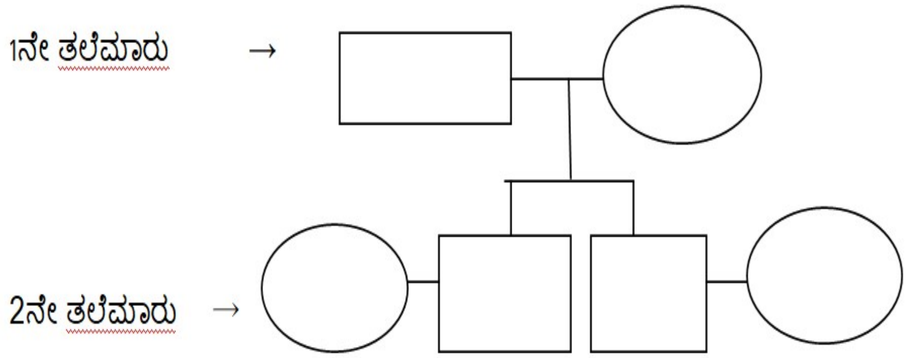
VIII. Answer the following questions (four marks questions)

45. Describe the help your neighbours have given to your family other than your home. (Hard)
46. Explain how the cooperation of the members of the household strengthens the family. (Hard)
47. Explain the philosophical and morphological differences between your friend and your family. (Hard)
48. Why is the number of separated families increasing due to lifestyle changes? Explain. (Hard)
49. Explain the symbols used in the family tree with examples. (Hard)
50. What are the benefits of family members living together? (Hard)
51. Explain the importance of care and respect for elders in the family. (Hard)

52. How does the family play an important role in the supply of love, affection and needs? (Hard)
53. Explain the reasons for the changes in the nature of the family. (Hard)
54. Who are the others who can help your family and how they help

IX. Project task (four marks questions) (Hard).

55. Write the family tree of your family.



(A square or circle can be arranged if necessary.)

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Lesson – 3. Community

Learning Outcomes:

By the end of the lesson, students will be able to:

1. Define what a community is in simple terms.
2. Identify various members/helpers of a community such as teachers, doctors, farmers, policemen, and sweepers.
3. Explain the roles and responsibilities of different people in a community.
4. Recognize the importance of living in a community and how people help one another.
5. Describe the services provided by the community like education, health care, safety, cleanliness, and food.
6. Develop respect for people who do various jobs in the community.
7. Understand the need for cooperation and unity among community members.
8. Give examples of how they contribute or can contribute to their own community (e.g., keeping surroundings clean).
9. Distinguish between different occupations and their contribution to society.
10. Demonstrate basic civic values like responsibility, cleanliness, and mutual support through classroom discussions and activities.

I. Choose the correct option and answer the following questions

1 What is a group of people living in a particular area called? (Easy)

A. Family

b. village

C. city

D. Community

2 What percentage of people in India live in villages? (Easy)

a) 50%

b) 60%

c)72%

d) 80%

3 What is one of the major problems found in villages? (Easy)

a) Lack of education

b) Unemployment

c) Cleanliness problem

d) All of the above

4 What is the example of tribal communities in Karnataka? (Easy)

(a) Kurubas, Gowdas and Vokkaligas

(b) Soligas, Brahmins, Jains

(c) Soligas, Koragas, Honey-shepherds

(d) Veerashaivas, Adivasis, Koragas

5 Every profession/job in the community should be respected because (Easy)

a) Money can be earned from it.

b) The labour of hundreds of people is involved in the preparation of our essential commodities.

c) It is only through this that one can live.

d) Just for pleasure.

II. Fill in the blanks

6. A group of people living in a particular area is called a __________. (Easy)
7. The people of the community are __________ to each other . (Easy)
8. People in rural areas are in __________ community. (Easy)
9. The people who live in the city form __________ community. (Easy)
10. People living in forest and hilly areas belong to __________ community. (Easy)
11. __________ an important occupation in rural areas. (Easy)
12. People in urban areas come for better employment and __________. (Easy)
13. Respect for work means knowing that every job is __________. (Easy)
14. Ethnic people have separate/ distinct, language, __________ and culture. (Easy)
15. The Soligas and Koragas are the ethnic communities of __________ state. (Easy)
16. There is a feeling of __________ among the people of the community. (Easy)
17. __________ activities are related to agriculture. (Easy)
18. __________ is a village cleanliness project. (Easy)
19. Garbage management is a big problem in __________ areas. (Easy)
20. The government provides __________ and education to the tribals. (Easy)
21. People in rural communities are more __________ . (Easy)

22. Bangalore is a __________ city. (Easy)

23. It is said that rearing cows and buffaloes is __________. (Easy)

24. The industry of rearing silkworms is called __________. (Easy)

25. All jobs are __________ and respectable. (Easy)

III. State true or false to the following questions

26. People from the community live far away from each other. (Easy)

27. Every job has its own significance. (Easy)

28. People in the city are mainly engaged in agriculture. (Easy)

29. Interdependence is less in the rural community. (Easy)

30. The Soligas are an ethnic group of Mysore district. (Easy)

31. As the community gets bigger, the dependency decreases. (Easy)

32. The Nirmal Gram Yojana is for village cleanliness. (Easy)

33. The tribals have the same dress and customs as the urban people. (Easy)

34. A community is formed when families live together. (Easy)

35. Everyone in the community should take responsibility for development. (Easy)

36. Only government jobs should be respected. (Easy)

37. There are problems of domestic and vehicular traffic in cities. (Easy)

38. The people gathered at the fair form a permanent community. (Easy)

39. Teachers and doctors cannot form a community. (Easy)

40. Everyone in the community is completely independent. (Easy)

IV. 41.Match the following. (Medium)

A	B
1. Rural Community	a. Agricultural Work
2. Soligas	b. Tribal Community
3. Poultry farming	c. Big Cities
4. Urban Community	d. Rearing chickens
5. Ashraya Scheme	e. Rural Employment
6. Production of umbrellas	f. Housing for the poor
7. Underground drainage system	g. Education Plan

A	B
8. Sarva Shiksha Abhiyan	h. Urban Development
9. Ethnic community	i. Others needed
10. Interdependence	j. Forest and hilly areas

V. Answer the following questions (one-mark questions)

42. What is a community? (Easy)
43. Give examples of two communities. (Easy)
44. What is the main occupation of rural people? (Easy)
45. Name one tribal community in Karnataka. (Easy)
46. Write down a feature of an urban community. (Easy)
47. What is job respect? (Medium)
48. What is a tribal community? (Medium)
49. What is the purpose of Nirmal Gram Yojana? (Medium)
50. What is a major problem in urban areas? (Medium)
51. Who in the community is interdependent? (Medium)

VI. Answer the following questions (Two marks questions)

52. Name any four occupations in the village. (Medium)
53. What are the two major problems of tribal people? (Medium)
54. State two reasons why people come to the city. (Medium)
55. What is the dress and custom/culture of ethnic people? (Medium)
56. Write down two features of a community. (Medium)
57. What is the purpose of Sarva Shiksha Abhiyan? (Medium)
58. What is interdependence in a community? (Medium)
59. Write two ways/ways in which people can help in natural disasters. (Medium)
60. Name any two urban development projects. (Medium)
61. Name any two non-agricultural rural occupations. (Medium)

VII. Answer the following questions (three marks questions)

62. Write down three important differences/differences between rural and urban communities. (Hard)
63. Give details of the three problems faced by the urban community. (Hard)
64. Name the three occupations of the tribal community. (Hard)

65. Explain the three rural development schemes. (Hard)

66. Explain how people cooperate in food production. (Hard)

VIII. Answer the following questions (four marks questions)

67. Explain the characteristics and different types of community. (Hard)
68. Explain the lifestyle, occupation and problems of the tribal community. (Hard)
69. Explain the problems of rural areas and the remedial measures taken by the government. (Hard)
70. Discuss urban problems and the steps taken by the government. (Hard)
71. Write a short essay on the value of employment and interdependence in the community (hard)

IX. Project Work (Four Marks Question)

72. Colour the picture of the rural community (hard)



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Lesson – 4. Community – Games

Learning Outcomes:

After studying this lesson, students will be able to:

1. Understand the role of games in a community and explain how they help in building relationships and unity among people.
2. Identify the benefits of games, such as entertainment, physical exercise, and mental relaxation.
3. Recognize the importance of physical and mental health through games, yoga, and regular physical exercise.
4. List the uses of games, such as improving intelligence, promoting cooperation, accepting success and failure equally, and building friendships.
5. Differentiate between regular games and adventure games and understand their unique features and risks.
6. Name a few international and adventure games (e.g., river rafting, mountaineering, sky diving).
7. Understand the precautions needed before participating in adventure games.
8. Describe the impact of games on personal health, such as maintaining body weight, improving confidence, and making the body strong.
9. Reflect on their own holiday activities and identify games or physical activities that bring them joy.
10. Develop an attitude of participation and teamwork in games.
11. Appreciate traditional/native adventure games and understand their cultural significance.
12. Collect and share information about any one adventure game known to their family.
13. Become aware of famous personalities in adventure sports, like Edmund Hillary, Tensing Norgay, and Bachendri Pal.
14. Understand how games help in building international friendship and cooperation.

I. Choose the correct option and answer the following questions

1 What is the major benefit of doing sports and exercises regularly? (Easy)

a) Improves writing skills.

b) Increases appetite.

c) Improves physical and mental health.

d) Time is wasted.

2 Where is the "challenge of reaching the goal", one of the most important features of adventure sports, found? (Easy)

a) In easy situations

b) Only in indoor games

c) In non-ordinary situations

d) Only in recreational activities

3 What is the most important quality that an athlete should possess while participating in adventure sports? (Easy)

a) Just fatigue.

b) More preparation, speed, dexterity and training.

c) Just happiness.

d) Writing skills.

4 Sources say that one should behave very patiently and responsibly while participating in which sport? (Easy)

a) Indoor games

b) Traditional sports

c) Adventure Sports

d) Mass games

5 Who was the first Indian woman to climb Mount Everest? (Easy)

a) Edmund Hillary

(b) Tenzing Norgay

(c) Bachendripal

(d) Saalumarada Thimmakka

II. Fill in the blanks

56. The community has created a ____________ to relax and spend time. (Easy)
57. Games develop____________ between individuals in the community. (Easy)
58. Adventure games require special ____________ and proper ____________ . (Easy)
59. ____________ is the highest peak in the world.Easy)
60. Edmund Hillary and ____________ Norgay were the first to climb Everest. (Easy)
61. The best exercise to improve health is ____________.Easy)
62. National and international games build ____________ and ____________ between countries. (Easy)
63. ____________ is a traditional sport that takes place during the Mysore Dasara festival .Easy)
64. Games provide entertainment and ____________ exercise. (Easy)
65. ____________ is the first Indian woman to climb Mount Everest . (Easy)
66. Adventure games require more____________ and ________________. (Easy)
67. Proper ____________ and ____________ are essential before playing adventure games. (Easy)
68. _______________ is the day when schools are mostly closed .Easy)
69. Playing games regularly improves ____________ and ____________ health. (Easy)
70. Games develop a vision of winning and accepting ____________ equally. (Easy)
71. The community has created a ____________ to relax and spend time. (Easy)
72. Games develop____________ between individuals in the community. (Easy)
73. Adventure games require special ____________ and proper ____________ . (Easy)

74. ____________ is the highest peak in the world.Easy)
75. Edmund Hillary and ____________ Norgay were the first to climb Everest. (Easy)
76. The best exercise to improve health is ____________.Easy)
77. National and international games build ____________ and ____________ between countries.(Easy)
78. ____________ is a traditional sport that takes place during the Mysore Dasara festival .Easy)
79. Games provide entertainment and ____________ exercise.(Easy)
80. ____________ is the first Indian woman to climb Mount Everest .(Easy)
81. Adventure games require more____________ and ________________.Easy)
82. Proper ____________ and ____________ are essential before playing adventure games.(Easy)
83. _______________ is the day when schools are mostly closed .Easy)
84. Playing games regularly improves ____________ and ____________ health.(Easy)
85. Games develop a vision of winning and accepting ____________ equally.(Easy)

III. State true or false to the following questions

86. Games build good relationships in the community. (Easy)
87. Adventure games are easy and do not require training. (Easy)
88. You don't need to exercise if you play the game. (Easy)
89. Edmund Hillary and Bachendri Paul were the first to climb Everest.(Easy)
90. National and international games enhance friendship between countries.(Easy)
91. Games boost confidence. (Easy)
92. Games can satiate the hunger of the stomach. (Easy)
93. Adventure games do not require special equipment. (Easy)
94. Wrestling is celebrated during the Mysore Dasara festival. (Easy)
95. Games are only for young people. (Easy)

IV. 46.Match the following. :(Medium)

Part A	Part B
1. Edmund Hillary	a. What is required for adventure games
2. Games	b. Who was the first to climb Mount Everest
3. Adventure games	c. Physical exercise
4. Yoga	d. Building friendships
5. International games	e. Training and Skills
6. Mysore Dasara	f. Wrestling
7. Benefits of games	g. Entertainment and Pleasure
8. Bachendri Pal	h. First Indian woman to climb Everest
9. Sunday	i. Building a relationship
10. Community	j. Holiday

V. Answer the following questions (one-mark questions)

47. What do games build between people? (Easy)

48. Name one physical exercise mentioned in the lesson. (Easy)

49. What types of games require special equipment and training? (Easy)

50. Who was the first Indian woman to climb Mount Everest? (Easy)

51. On which day is the school almost closed? (Easy)
52. State one of the benefits of playing games.(Easy)

53. Name one international game that you know of.(Easy)

54. Which is the highest peak in the world?Easy)

55. Who was the first to climb Mount Everest?Easy)

56. Name a traditional sport associated with Mysore Dasara festival.(Easy)

VI. Answer the following questions (two marks questions)

57. Write down the two uses of games.(Medium)
58. Why is it important to play the game regularly? (Medium)
59. What precautions should be taken before playing adventure games? (Medium)
60. How do national and international games help countries? (Medium)
61. What problems can happen to those who do not do physical exercise? (Medium)
62. Name the two adventure games mentioned in the lesson. (Medium)
63. Name the two benefits of yoga or cycling. (Medium)
64. Why is it important for adults and children to play together? (Medium)

VII. Answer the following questions (three marks questions)

65. Explain how games help build relationships in the community.(Hard)
66. Explain what adventure games are and why they are dangerous. (Hard)
67. List the four benefits of regular games and exercises. (Hard)
68. Explain the importance of training and equipment for adventure games. (Hard)
69. How do games help in body and mental health? (Hard)
70. Explain the importance of swadeshi adventure games and their impact on today's technology. (Hard)
71. Explain the role of wrestling in Mysore Dasara festival. (Hard)

72. How do you spend time profitably on a holiday? (Hard)

VIII. Answer the following questions (four marks questions)

73. Explain the role of games to enhance harmony and cooperation in the community. (Hard)
74. Explain the characteristics of adventure games and the safety measures to be followed while playing. (Hard)
75. Explain how national and international games help in global friendship and cooperation. (Hard)
76. Write down the importance of body exercises and games in terms of growth of health and confidence. (Hard)
77. Write down the details of an adventure game, along with its challenges, preparations and benefits. (Hard)
78. How do games develop a view of accepting wins and losses equally? Explain. (Hard)

79. How will the new technology affect indigenous adventure games? Discuss. (Hard)

IX. Project Work (Four Marks Question)

80. Collect pictures related to various sports.Prepare chart (hard)

Lesson – 5. Natural Resources

Learning Outcomes:

After studying this lesson, students will be able to:

1. Define natural resources and explain their importance for all living organisms.
2. Identify different types of natural resources such as water, soil, air, minerals, plants, and animals.
3. Classify natural resources into renewable and non-renewable resources with examples.
4. Explain the significance of key natural resources like solar energy, soil, forests, animals, fossil fuels, and minerals.
5. Describe the process of soil formation and factors causing soil erosion.
6. Recognize the importance of forests and list their uses, including their role in oxygen production and soil conservation.
7. Understand the causes and effects of deforestation and discuss ways to conserve forests.
8. Identify fossil fuels and describe their formation, uses, and environmental impact.
9. Explain the importance of minerals, their extraction, and usage in daily life.
10. Appreciate the need for moderate and sustainable use of natural resources to prevent depletion.
11. Develop awareness about conservation efforts and movements aimed at protecting natural resources.
12. Relate activities that use solar energy and soil to everyday life.
13. Explain the role of human responsibility in conserving natural resources for future generations.
14. Connect the concept of natural resources to the materials used in their own homes.

I. Choose the correct option and answer the following questions.

1 Which is the most abundant gas in the atmosphere? (Easy)

a) Oxygen

b) Carbon dioxide

c) Nitrogen

d) Water vapour

2 What is the amount of oxygen in the atmosphere? (Easy)

a) 78%

b) 0.04%

c) 21%

d) 0.96%

3 Which is one of the characteristics of air? (Easy)

a) Air has colour.

b) Air has taste.

c) Air occupies space.

d) Air decomposes easily.

4 What are the layers of earth's crust or crust made up of rocks called? (Easy)

a) Geology

b) Soil

c) Lithosphere

d) Atmosphere

5 Saalumarada Thimmakka belongs to which district? (Easy)

(a) Magadi

(b) Bangalore

(c) Tumkur

(d) Ramanagara

II. Fill in the blanks

18. Natural resources are available ___________ (naturally/on Mars).(Easy)
19. Water, soil, air, minerals, plants and animals are called ___________. (Easy)
20. The resources which are continuously available and can be recycled are called ___________ resources. (Easy)
21. Coal, petrol, diesel and natural gas are ___________ resources. (Easy)
22. The energy obtained from the sun is called ___________. (Easy)
23. The soil takes about ___________ years to create a soil of 3 cm topsoil. (Easy)
24. The outermost layer of the earth is called ___________. (Easy)
25. The method of cultivating according to the shape of the land to prevent soil erosion is called ___________. (Easy)
26. Forests release ___________ needed for respiration. (Easy)
27. Liquefied Petroleum Gas (LPG) used for cooking is processed ___________ and obtained. (Easy)
28. Animals are ___________ resources because of their increase. (Easy)
29. Minerals are extracted in ___________ form. (Medium)
30. Fossil fuels are formed from the ___________ of trees and animals. (Easy)
31. Excessive use of natural resources can lead to their ___________ . (Easy)
32. Saalumarada Thimmakka planted ___________ trees and protected them. (Easy)

III. State true or false to the following questions

33. Natural resources are not useful for living organisms. (Easy)
34. The resources used can be reused. (Easy)
35. Coal and petrol are recycled resources. (Easy)
36. The energy obtained from the sun comes from the moon. (Easy)
37. Soil is a renewable resource. (Easy)
38. Forests help prevent soil erosion. (Easy)
39. Hunting wild animals in the forest increases their numbers. (Easy)
40. Farming according to the shape of the land is called monoculture. (Easy)
41. Fossil fuels are formed from plants and animals that died several billion years ago. (Easy)
42. Minerals are formed within a few days. (Easy)
43. National parks are places that protect wild and wild animals. (Easy)
44. Saalumarada Thimmakka was the one who cut down the trees. (Easy)
45. Natural gas is used as fuel in vehicles. (Easy)
46. Overuse of fuels harms the environment. (Easy)
47. Forests are home to several wild animals and birds. (Easy)

IV. 36.Match the following. (Medium)

A	B
1. Renewable Resources	a. The power of the sun
2. Non-renewable resource	b. coal
3. Fuel used in vehicles	c. Spoilage of stones
4. Soil forming resource	d. Petrol
5. Forest produce	e. Heat and light
6. Energy from the Sun	f. Fruits and trees
7. Method of preventing soil erosion	g. Banaraghatta
8. National Park Example	h. Monoculture
9. Natural gas	i. Planting banyan trees
10. Saalumarada Thimmakka	j. Gas fuel

V. Answer the following questions (one-mark questions)

37. What are natural resources? (Medium)

38. Name any two renewable resources. (Medium)
39. Name any two non-renewable resources.(Medium)
40. What materials is the soil made up of? (Medium)
41. Which is the outermost layer of the Earth? (Medium)
42. How do plants prepare their food?Easy)
43. Name one fossil fuel. (Easy)
44. What gas do forests release? (Easy)
45. LPG is used for cooking, how is it obtained?(Medium)
46. Who is the woman who planted rows of trees in Karnataka?Normal)

VI. Answer the following questions (two marks questions)

47. Differentiate between renewable and non-renewable resources. (Medium)
48. Why is soil a renewable resource? (Easy)
49. Write down the two uses of forests.(Easy)
50. What is equilateral farming? (Easy)
51. How are fossil fuels formed? (Easy)
52. Why is it important to conserve natural resources? (Easy)
53. Name the three petroleum products. (Easy)
54. How are minerals obtained? (Medium)
55. Mention two ways for conservation of forests. (Medium)
56. What is the purpose of the Appiko movement? (Medium)

VII. Answer the following questions (Three marks questions)

57. How is excessive use of fuels harmful to the environment? (Medium)
58. Explain the importance of forests in our environment. (Medium)
59. What steps can be taken to prevent soil leakage? (Medium)
60. How is the energy of the sun useful for plants? (Medium)
61. Explain Saalumarada Thimmakka and his environmental service. (Hard)
62. How is coal formed and what are its uses? (Hard)
63. Give 3-3 examples of recycled and non-recyclable resources. (Hard)
64. How does the government protect the forest and animals? (Hard)
65. Why can't fossil fuels be recycled? (Hard)
66. Why are animals renewable resources? (Hard)

VIII. Answer the following questions (four marks questions)

67. Name the different types of natural resources and why is their conservation necessary? (Hard)
68. Write an essay on the use and importance of soil. (Hard)
69. Explain the role of forests in preventing soil erosion and conserving wildlife. (Hard)
70. Explain the process of formation of petroleum and its uses. (Hard)
71. Explain the steps taken by the government and communities to conserve forests. (Hard)
72. The effects of deforestation and how can people help prevent them? (Hard)
73. Why should natural resources not be misused? (Hard)
74. Explain the difference and examples between solid, liquid and gaseous fuels. (Hard)
75. Explain the APPICO and Chipko movements and their significance. (Hard)
76. Write down the life and achievements of Saalumarada Thimmakka. (Hard)

IX.Project Work (Four Marks Question)

77. Sow ragi/coriander seeds in coconut shell/tender water shell and observe the growth of the seedlings. Share information with classmates Display in class. (Hard)

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Lesson-6. Air

Learning Outcomes:

After studying this lesson, students will be able to:

1. Understand that air is a natural resource and is essential for all living organisms.
2. Describe the Earth's atmosphere as the layer of air surrounding the planet.
3. Know the composition of air including nitrogen, oxygen, carbon dioxide, water vapor, noble gases, and dust particles with approximate percentages.
4. Demonstrate the presence of air through simple experiments and describe its characteristics.
5. Explain that air occupies space, has weight, and is invisible but its presence can be felt.
6. Understand the importance of oxygen in air for respiration in animals and plants.
7. Recognize the role of air in combustion (fire) and how air supports burning.
8. Describe the effects of moving air (wind) and understand the energy carried by wind.
9. Identify examples from daily life where air plays an important role (e.g., tires, flying kites, swinging coconut trees).
10. Understand what air pollution is and identify its causes such as smoke from factories, vehicles, burning substances, and crackers.
11. Describe the harmful effects of air pollution on human health, plants, and animals.
12. Suggest and discuss practical measures to prevent air pollution and protect the environment.
13. Differentiate between actions that cause air pollution and those that help prevent it by observing pictures and scenarios.
14. Relate the importance of clean air to health and well-being of all living things.

I. Choose the correct option and answer the following questions

1 Which is the lowest amount of gas in the atmosphere? (Easy)

a) Oxygen

b) Carbon dioxide

c) Nitrogen

d) Water vapour

2 What is the amount of carbon dioxide in the atmosphere? (Easy)

a) 78%

b) 0.04%

c) 21%

d) 0.96%

3 Which is one of the characteristics of air? (Easy)

a) Air has colour.

b) Air has taste.

c) Air occupies space.

d) Air decomposes easily.

4 What is the accumulation of chemicals, dust, microorganisms in the air that cause harm to humans or other organisms called? (Easy)

a) Water pollution

b) Land pollution

c) Noise pollution

d) Air pollution

5 What are the "lung and respiratory problems" which is one of the major health problems caused by air pollution? (Easy)

a) Cholera

b) Malaria

(c) Amanakanke

d) All of the above (including heart disease, cancer)

II. Fill in the blanks

6. The layer of air that surrounds the earth is called ___________. (Easy)
7. Air is very ___________ to the life of animals and plants . (Easy)
8. Air mainly consists of gases ___________ and ___________. (Easy)
9. ___________% of the natural gas in the air . It is 78%. (Easy)
10. Carbon dioxide in the formation of air. There is only ___________. (Easy)
11. Air has weight and it ___________occupies. (Easy)
12. We use the oxygen present in the air for ___________. (Easy)
13. The wind is not visible but we ________________ it. (Easy)
14. Air pollution is caused by ___________, ___________ and ___________. (Easy)
15. We can use ___________ vehicles to prevent air pollution. (Easy)

III. State true or false to the following questions

16. The wind is visual and we can see it. (Easy)
17. Air is essential for life for animals and plants. (Easy)

18. 78% of the air is made up of hydrogen. (Easy)
19. Oxygen in the air. It is 21%.(Easy)
20. Air has no weight. (Easy)
21. Air pressure is inevitable for man. (Easy)
22. Air pollution is caused by the accumulation of dust and chemicals in the air. (Easy)
23. Air pollution does not harm health. (Easy)
24. Smoke from factories causes air pollution. (Easy)
25. We increase pollution by using large amounts of fuel in vehicles. (Medium)

IV. 26. Match the following. (Medium)

A	B
1. The main part of the air	a. oxygen
2. Air 78%	b. Nitrogen
3. Mass of air	c. Dust, water vapour
4. Air has weight	d. A plate filled with air
5. Pollution in the air	e. Chemical and fumigation
6. Use of air	f. Respiration, burning
7. Prevention of air pollution	g. High chimneys, public transport
8. What is moving air called?	h. Wind

V. Answer the following questions (one-mark questions)

27. What combination is air?? (Easy)
28. What is another name for air? (Easy)
29. Which gases are important in air? (Easy)
30. Why is air essential for the life of animals? (Easy)
31. Where do we feel its presence where air is not found? (Easy)
32. Does air have weight? (Easy)
33. What is air pollution? (Easy)
34. What are the major pollutants of air? (Easy)
35. What measures can be followed to prevent air pollution? (Easy)
36. What is another name for moving air? (Easy)

VI. Answer the following questions (two marks questions) (Medium)

37. What gases are present in the structure of air? (Medium)
38. How can air be explained as having weight? (Medium)
39. What is the harm caused by air pollution? (Medium)
40. Write down the main uses of air.(Medium)
41. What can we do to prevent air pollution?Normal)
42. Why is air necessary to ignite a fire?Normal)
43. Explain the causes of air pollution.(Medium)
44. Explain an easy experiment related to air.(Medium)

45. Name the gases present in the air.(Medium)
46. State the two properties related to air.(Medium)

VII. Answer the following questions (Three marks questions)

47. How does air help animals and plants? (Hard)
48. Name the major gases present in the air. (Hard)
49. Explain the health problems caused by air pollution. (Hard)
50. Explain a simple experiment to show that air has weight. (Hard)
51. Write down 3 methods on the uses of air and prevention of air pollution. (Hard)
52. Give an example of the uses of air. (Hard)
53. Explain the steps that can be taken in the society to prevent air pollution. (Hard)
54. Explain the changes in the condition of air and the reasons for the movement of air. (Hard)
55. Write an essay on the use of air and its identification. (Hard)
56. Why is air necessary to ignite a fire? (Hard)

VIII. Answer the following questions (four marks questions)

57. Explain the structure of air, its importance and experiments related to air. (Hard)
58. Explain the causes, effects and measures that can be taken to prevent air pollution. (Hard)
59. Explain the experiment to show the weight of air and write down the importance of air weight. (Hard)
60. Write an essay on the uses of air and explain the importance of air.(Hard)
61. How do the effects of air pollution affect health, environment and biospheres? (Hard)
62. Explain the strategies and social awareness that can be undertaken to prevent air pollution. (Hard)
63. Explain the gases mixed with air and analyse the damages to the air. (Hard)
64. Explain the role of government and community in controlling air pollution. (Hard)
65. Write a discussion on the condition of air and the movement of air and explain its importance. (Hard)
66. Analyse the key ideas you have learnt in the lesson related to air (Hard)

IX.Project Work (Four Marks Question)

67. When you take a balloon and blow the air and make it like a big ball, hold the mouth of the balloon and let the air inside it out a little, observe the sound (music) that comes with it.Think about the reason for this.Tell me where it is used.(Medium)

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Lesson-7. Water

Learning Outcomes:

After studying this lesson, students will be able to:

1. Understand the importance of water for plants, animals, and human life.
2. Identify the main sources of water such as rain, oceans, rivers, springs, wells, ponds, and reservoirs.
3. Describe how water is distributed on Earth and recall the percentage of water covering the Earth's surface.
4. Explain the difference between fresh water and salt water.
5. Recognize the concept of underground water and understand how wells and springs provide water.
6. Know the different types of wells and how underground water can get exhausted.
7. Understand traditional and modern methods of water conservation, including rainwater harvesting and soak pits.
8. Differentiate between ponds and reservoirs by their size, water storage capacity, and uses.
9. Appreciate the role of water in daily life and list various uses of water at home and school.
10. Understand the physical properties of water such as being colorless, odorless, and tasteless.
11. Perform simple activities to observe the physical characteristics of water and verify related facts.
12. Understand the biological importance of water in the growth of plants and the survival of animals.
13. Recognize cultural and traditional practices related to water conservation and worship in their community.
14. Identify causes and effects of water pollution, including physical, chemical, and biological pollution.
15. Understand the health hazards caused by contaminated water such as cholera, diarrhea, and malaria.
16. Learn preventive measures to maintain potable (pure) water and promote good health.

I. Choose the correct option and answer the following questions

1 What is the largest source of water on earth? (Easy)

a) Rivers

b) Lakes

c) Oceans

d) Wells

2 In summer, the snow of the snow mountains melts and joins which water body? (Easy)

A.Lakes

b.Wells

C.Rivers

D.Lakes

3 What is the release of groundwater stored beneath the earth's crust through pores due to pressure called? (Easy)

a) Well

b) Canal

c) Spring

(d) Lake

4 What qualities does pure water not have? (Easy)

A.Taste and smell

b.Color and smell

C.Taste and Color

D.Color, smell and taste

5 What is the disease spread by sewage and mosquitoes? (Easy)

a) Cholera

(b)

c) Diarrhea

d) Malaria

II. Fill in the blanks

6. _____% of the earth is covered by water. (Easy)
7. The main source of water is ________. (Easy)
8. The water that comes out of the pressure inside the earth is called ________. (Easy)
9. The water that is exposed to the depths of the earth is called ________. (Easy)
10. The constructions constructed to store water on rivers are called ________. (Easy)
11. For the growth of plants____________ is required. (Easy)
12. Clean water is without ________, ________, and ________. (Easy)
13. Diseases caused by water pollution include ________, ________, and ________. (Easy)
14. The rivers join the ________ at the end . (Easy)
15. Rainwater enters the earth and accumulates as water________ (Easy)
16. __________ and ships are used for water transport. (Easy)
17. A disease called ________ arises in places where water is standing. (Easy)
18. ________ important for the water inside the earth to be recharged. (Easy)
19. The water is heavy. (Easy)
20. About _____% water is present in the body of plants and animals. (Easy)

III.State true or false to the following questions

21. Oceans are the smallest source of water on earth. (Easy)
22. Springs are water that comes from pressure inside the earth. (Easy)
23. Water does not flow from height to bottom. (Easy)
24. When water is boiled, it evaporates. (Easy)
25. Reservoirs store water throughout the year. (Easy)
26. It is safe to drink unpolluted water. (Easy)
27. Pure water has no colour, no smell, no taste. (Easy)
28. Rivers run without struggle and do not join the ocean. (Easy)
29. Excessive use of underground water is not flawed. (Easy)
30. Malaria is transmitted by the female Anopheles insect.(Easy)
31. The salt water of the oceans is suitable for drinking. (Easy)
32. Rainwater harvesting helps in the survival of water.(Easy)

IV. 33.Match the following. (Medium)

	A	B
1	Spring	a. A reservoir built on rivers
2	Water to the lake	b. The place where water comes from within the earth
3	Reservoir	c. Man-made low bottom
4	Village Lake	d. Water washed in the ground
5	Ocean	e. Method of water survival
6	Rainwater harvesting	f. The largest source of water on earth
7	Malaria	g. A river that flows into the ocean
8	river	h. Insect-borne disease

V. Answer the following questions (one-mark questions)

34. .How much of the earth is covered by water? (Easy)
35. What are the sources of fresh water? (Easy)
36. What is spring? (Easy)
37. Name the two uses of water.(Easy)
38. The water that is drilled out of the earth is called. (Easy)
39. What disease can be caused by drinking contaminated water? (Easy)
40. What is rainwater harvesting? Easy
41. Where do the rivers eventually meet? Easy
42. What is the main function of reservoirs? Easy

VI.Answer the following questions (two marks questions)

43. Which insect spreads malaria? Easy
44. Mention the two sources of fresh water. (Medium)
45. Write about reservoirs. (Medium)
46. Why is water called 'living water'? (Medium)
47. What is the importance of water conservation? (Medium)
48. What are the consequences of water pollution? (Medium)
49. How is the water inside the earth recharged? (Medium)
50. State the two physical properties of pure water. (Medium)

51. How does malaria spread? (Medium)
52. Name the devices used for water transport. (Medium)
53. What is the role of lakes in water storage? (Medium)

VII. Answer the following questions (three marks questions)

54. Explain the water cycle of rain, river and ocean. (Hard)
55. How are wells and lakes formed? (Hard)
56. Write down the effects of drinking polluted water. (Hard)
57. What is the importance of water for the life of plants and animals? (Hard)
58. Explain the methods of conserving underground water. (Hard)
59. Explain the difference between a lake and a reservoir. (Hard)
60. Write about the importance of water in our culture. (Hard)
61. What are the benefits of rainwater harvesting? (Hard)
62. What is an ink button? What is the need for them? (Hard)
63. Write down some physical properties of water. (Hard)

VIII. Answer the following questions (four marks questions)

64. Explain the sources of water in the earth and their importance. (Hard)
65. How does water pollution occur and what are its effects? (Hard)
66. Write an essay on the importance and methods of water conservation. (Hard)
67. Discuss the daily uses and moderation of water. (Hard)
68. Give a comparative description of lakes and reservoirs. (Hard)
69. The damage caused to the environment due to excessive use of underground water and how can it be restored? (Hard)
70. Explain the process of spread of malaria and its prevention methods. (Hard)
71. How important is water for the life of plants and animals? (Hard)
72. Explain the traditional and innovative methods of water conservation. (Hard)
73. Write about the culture and religious processes of water in your environment. (Hard)

IX. Project Work (Four Marks Question)

74. Visit the nearest health centre .Make a list of diseases caused by contaminated water and methods of prevention (Hard)

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Lesson-8. Agriculture

Learning Outcomes:

By the end of this lesson, students will be able to:

1. Explain the meaning of agriculture and who agriculturists are.
2. Identify the different stages involved in growing crops.
3. Describe the main crops grown in various districts of Karnataka.
4. Recognize the different types of farmers: farm labourers, small scale farmers, and large scale farmers.
5. Understand the problems faced by farm labourers and small scale farmers and suggest possible solutions.
6. Differentiate between rain-fed agricultural land and irrigated agricultural land.
7. List examples of crops grown in rain-fed and irrigated areas.
8. Explain the importance of irrigation and name sources of irrigation like ponds, canals, wells, and bore wells.
9. Describe drip irrigation and spray irrigation methods and their benefits.
10. Understand the difference between organic farming and chemical farming.
11. Appreciate the importance of organic farming for healthy soil and crops.
12. Identify modern and traditional methods of seed storage.
13. Understand the role of farmers in food production and respect their hard work.

I. Choose the correct option and answer the following questions

1 By what name did Kuvempu address the farmers? (Easy)

(a) Annadata

(b) The ploughing yogi

(c) Karmaveera

d) Both a) and b)

2 Without their own land, who works as an agricultural labourer on someone else's land to earn their living? (Easy)

a) Small farmers

b) Large farmers

c) Agricultural labourers

d) Landlords

3 According to agricultural land, crops that use less water are grown on which agricultural land? (Easy)

a) Irrigated agricultural land

b) Mixed agricultural land

c) Horticulture

d) Rainfed agricultural land

4 Which of the following is an example of manure used in organic farming? (Easy)

a) Chemical fertilizers

b) Urea

c) Pesticide

d) Vermicompost

5 What is the method of growing 2 to 3 crops in a year on the same agricultural land called? (Easy)

a) Mixed farming

b) Horticulture

c) Intensive farming

d) Rainfed agriculture

II. Fill in the blanks

6. Agriculture is the ______ industry of our country. (Easy)
7. The soil is ______ for agriculture . (Easy)
8. Grains, vegetables, fruits are ______ products. (Easy)
9. Paddy is a ______ crop. (Easy)
10. Wheat is a ______ crop. (Easy)
11. Jowar is usually grown in ______ season. (Easy)
12. ______ and ______ are used in agriculture. (Easy)
13. ______ gives the labour required for agriculture. (Easy)
14. Jowar and maize are ______ crops. (Easy)
15. Peas and wheat are ______seasonal crops. (Easy)
16. PepsiCo and Hindustan Unilever belong to ______ industries. (Easy)
17. Agriculture helps ______ manage life. (Easy)

III. State true or false to the following questions

18. Agriculture is the main occupation of man. (Easy)
19. Wheat is a kharif crop. (Easy)
20. Workers help in agriculture. (Easy)
21. Corn is a winter crop. (Easy)
22. Vegetable crops provide healthy food. (Easy)
23. Peas are a rabi crop. (Easy)

24. Soil and water are not required for agriculture. (Easy)
25. Vegetable crops include tomatoes. (Easy)
26. Monsoon crops are called rabi crops. (Easy)
27. Food production from agriculture is not useful. (Easy)

IV.28. Match the following (Medium)

A	B
1. Paddy	a) Rabi Crop
2. Wheat	b) Kharif Crop
3. Sesame seeds	c) Vegetable crop
4. Tomato	d) Oilseed
5. Workers	e) Required to grow crop
6. Soil	f) Gives effort
7. Dal	g) Agricultural Implements
8. Lavaris	h) Protein source

V. Answer the following questions (one-mark questions)

29. What kind of occupation is agriculture? (Medium)
30. In which season is paddy grown? (Medium)
31. Wheat is the crop of which season? (Easy)
32. Name one of the tools required for agriculture.(Easy)
33. What type of crop is jowar? (Easy)
34. What type of crop is peas? (Easy)
35. Name the two factors required to grow a crop.(Easy)
36. Which crop is generally grown in mountainous areas? (Easy)
37. Give an example of oilseed crops.(Easy)
38. Give an example of vegetable crops.(Easy)

VI. Answer the following questions (two marks questions)

39. What is the difference between kharif and rabi crops?Normal)
40. Write down any four elements required for agriculture.(Medium)
41. What are oilseeds? Give two examples.(Medium)
42. Write down the importance of vegetable crops.(Medium)
43. Name any two tools used in agriculture.(Easy)
44. What are the problems faced by farmers while growing crops?Normal)

VII. Answer the following questions (Three marks questions)

45. List any three kharif crops and explain their uses.(Hard)
46. List any three rabi crops and explain their use. (Hard)
47. Explain the three main agricultural implements used by farmers. (Hard)
48. Explain the importance of soil and water in the presentation of agriculture. (Hard)

VIII. Answer the following questions (four marks questions)

49. Explain the important aspects of agriculture. (Hard)
50. List the major crops of India by category: cereals, oilseeds, vegetables, fruits. (Hard)
51. Explain the problems faced by farmers in agriculture. (Hard)
52. Explain the role of agriculture in the food chain. (Hard)

IX. Project Work (Four Marks Question)

53. Look at the ploughing yogi-learn this song and act (hard)

Scan for the song above

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Lesson-9. Food – Essence of Life

Learning Outcomes:

After studying this lesson, students will be able to:

1. Recall the different nutrients present in food and identify food items rich in those nutrients.
2. Understand the sources of food, distinguishing between plant-based and animal-based food materials.
3. Classify food items into categories such as cereals, pulses, vegetables, fruits, oil seeds, and animal products.
4. Recognize the importance of millets as nutritious food sources and understand their benefits.
5. Understand the factors affecting food availability, such as agricultural conditions, climate, and population.
6. Explain the role of government and community efforts in ensuring food availability, like mid-day meals and fair price shops.
7. Compare and analyze food habits based on seasons, regions, traditions, and availability.
8. Understand the reasons for changing food habits due to modern influences like media, advertisements, and globalization.
9. Identify junk food and fast food, understand their negative effects on health, and explain why nutritious homemade food is preferable.
10. Understand the importance of food preservation methods like drying, pickling, and refrigeration.
11. Recognize the problem of food wastage and suggest ways to avoid wasting food.
12. Appreciate that food is the essence of life, providing energy for growth, development, and maintaining good health.

I. Choose the correct option and answer the following questions

1 Which of the following provides energy to the body? (Easy)

a) Water

b) Food

c) Clothing

d) Housing

2 Which nutrient is high in food items like "wheat, jowar, ragi"? (Easy)

a) Vitamin

b) Lipid

c) Carbohydrates

d) Mineral salts

3 Which of the following statements about millets is correct? (Easy)

a) Millets can be grown using more water.

b) They have very few nutrients.

c) These are called friends of drought.

d) They grow only by chemical fertilizers and pesticides.

4 What is meant by "junk food"? (Easy)

a) Nutrient-rich food which is essential for health.

b) A food item that is unnecessary for health or has little nutrition.

c) Traditional food consumed instead of home meals.

d) Low-cost food.

5 Name one of the methods used to preserve food. (Easy)

a) Heating

b) Adding salt

c) Refrigeration

d) All of the above

II. Fill in the blanks

6. Food is ________. (Easy)
7. We get ________ from food. (Easy)
8. ________ needed for health. (Easy)
9. Sugars (carbohydrates) give us ________ . (Easy)
10. Peanuts and fish are high in ________. (Easy)
11. Fruits and vegetables are high in ________. (Easy)
12. Watermelon and gourd have more ________ . (Easy)
13. Ragi and wheat are high in ________. (Easy)
14. Millets can be grown using less ________. (Easy)
15. Millets are called the friends of ________. (Easy)
16. The government provides ________ meals to school children. (Easy)
17. Junk food is low in ________ nutrients. (Easy)
18. Gobi Manchurian and Chinese food contains harmful ________ . (Easy)
19. Prepared food is sold in ________. (Easy)
20. The ________ in the packet food and the expiry date should be checked. (Easy)

21. The grapes are dried and stored as ________. (Easy)
22. ________ used for pickle preservation. (Easy)
23. Milk is preserved in ________. (Easy)
24. ________ are added to heat the fruits. (Easy)
25. A healthy diet maintains physical and ________ health. (Easy)

III. State true or false to the following questions

26. From food we grow and stay healthy. (Easy)
27. Millets are injurious to health. (Easy)
28. The sauce contains chemicals to make the food tasty. (Easy)
29. Junk food boosts immunity. (Easy)
30. Pickles are heated with sugar. (Easy)
31. Fast food is always nutritious. (Easy)
32. Doctors advise consuming millets for better health. (Easy)
33. Sugars help in body building. (Easy)
34. Fish and meat are preserved in cold storage. (Easy)
35. Fruits contain protein. (Easy)
36. The food habits are the same everywhere in Karnataka. (Easy)
37. Prepared food is always fresh and healthy. (Easy)
38. Throwing away good food is called wasting food. (Easy)
39. Obesity comes from spicy and junk food. (Easy)
40. A healthy diet gives strength to combat diseases. (Easy)

IV. 41. Match the following. (Medium)

Set 1: Nutrients and Sources

A	B
1. Sugars	Fish, eggs, groundnut
2. Proteins	Ragi, jowar, bread
3. fat	Fruits, Lemons, Vegetables
4. Vitamin	Brinjal, cabbage, grapes
5. Minerals	Dry coconut, egg yolk

Set 2: Plant-based foods

A	B
1. Cereals	Sunflower, Peanut
2. Oil seeds	Tur, bean, green chillies
3. Grains	Brinjal, beetroot

	A	B
4.	Vegetables	Mango, Orange
5.	Fruits	Millet, Jowar

Set 3: Conservation methods

	A	B
1.	Pickles	sugar
2.	Fruits	salt
3.	Fish and meat	Drying
4.	grapes	Fridge
5.	milk	Cold storage

V. Answer the following questions (one-mark questions)

42. What is the food that gives energy? (Easy)
43. What nutrients do carrots have? (Easy)
44. From which part of the plant do we get grains? (Easy)
45. Give the example of an oilseed. (Easy)
46. What is junk food? (Easy)
47. Give an example of cold storage. (Medium)
48. What nutrients are there in milk? (Medium)
49. Name a millet. (Medium)
50. What is food waste? (Medium)
51. Give an example of preserving food by drying. (Medium)

VI. Answer the following questions (two marks questions)

52. Name two food sources that contain protein. **(Medium)**
53. State the two uses of millets. **(Medium)**
54. Why should we give up junk food? **(Medium)**
55. Explain the two types of food preservation methods. **(Medium)**
56. Give two examples of food of animal origin. **(Medium)**
57. State two reasons for change in food habits. **(Medium)**
58. Explain the importance of the expiry date of the packet food. **(Medium)**
59. State the two benefits of the school mid-day meal scheme. **(Medium)**
60. Mention two common food items of your locality. **(Medium)**
61. Explain the two effects of eating outside food. **(Medium)**

VII. Answer the following questions (three marks questions)

62. Explain the three benefits of consuming millets.(Hard)
63. Explain the three reasons for wastage of food. (Hard)
64. Explain any three methods of food preservation. (Hard)
65. Classify the following food items into plant and animal sources: egg, mango, fish, ragi, brinjal, milk (hard)
66. Explain the three harmful effects of junk food. (Hard)
67. Explain the three efforts of the government for food availability. (Hard)

VIII. Answer the following questions (four marks questions)

68. Explain how climate and land affect the availability of food. (Hard)
69. Explain the impact of changes in food habits on health. (Hard)
70. What can we do to avoid food wastage? Explain with examples. (Hard)

71. Explain how the influence of media and technology affects food habits/habits. (Hard)
72. Put the following food items in the correct category: (Hard)
    a. Leaves, oranges, tur, brinjals, sunflower seeds

IX. Project Work (Four Marks Question)

73. Collect pictures of junk food and healthy food.Health supplements and health

    Classify and write down the deadly food items. (Hard)

Health supplements	Injurious to health

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Lesson-10. Residences

Learning Outcomes:

After studying this lesson, students will be able to:

1. Understand the concept of home as the first school and the importance of a home in human life.
2. Describe the evolution of human residences from early shelters like caves and bushes to independent houses and community housing.
3. Identify and list the different types of houses found in rural and urban areas, including huts, tiled roof houses, and concrete terrace houses.
4. Recognize the building materials used for constructing various types of houses.
5. Observe and describe common features of residential areas such as lane patterns, street lighting, and housing layout.
6. Differentiate between personal housing and community housing projects.
7. Understand the reasons for the development of community housing, especially due to population growth.
8. Identify the facilities provided in community housing projects such as roads, electricity, water supply, drainage, sanitation, health centers, parks, and transportation.
9. Discuss the advantages of community housing in meeting the needs of multiple families in limited spaces.
10. Analyze housing problems faced in rural and urban areas, including lack of proper drainage, sanitation, electricity, and water supply.
11. Suggest improvements or features that make a good house, such as proper ventilation, rainwater harvesting, solar electricity, underground drainage, and waste management.
12. Appreciate the importance of well-planned residences in promoting health, happiness, and peace for families and communities.

I. Choose the correct option and answer the following questions

1 What were the first human settlements? (Easy)

a) Huts

b) Caves and tree trunks

c) Tiled houses

d) Concrete houses

2 What is meant by "settlements"? (Easy)

a) A place where only one family lives.

b) In villages or cities, many families live side by side with houses built side by side.

c) Only temporary residential area.

d) Houses built in the desert

3 Which of the main objectives of community housing schemes is not included? (Easy)

a) Providing all the facilities required by individual families at home.

b) To make good roads, traffic arrangements, lighting, water, garbage disposal in a planned manner.

c) Construction of multi-storeyed residential buildings where only one family lives.

d) Construction of garden, hospital etc.

4 Which of the major housing problems in urban areas is? (Easy)

a) Lack of supply of clean drinking water.

b) Streets that are not suitable for vehicular traffic.

c) Lack of proper drainage system.

d) Lack of bathroom, toilet.

5 Which of the characteristics that a good city or village housing should have is wrong? (Easy)

a) There should be plenty of air and light.

b) There should not be a system of rainwater harvesting.

c) There should be a closed drainage system.

d) There should be a system of composting from garbage.

II. Fill in the blanks

6. Early man lived in _______ and _______. (Easy)
7. Home means the first _______ and mother means the first _______ . (Easy)
8. The residences built side by side in towns and villages are called _______. (Easy)
9. _______ housing schemes have been formulated due to the increase in population. (Easy)
10. The facility of _______ abandonment is provided in community homes. (Easy)
11. _______ and _______ have common problems of urban living. (Easy)
12. The house needs proper _______ and light. (Easy)
13. Rainwater harvesting helps in collecting _______. (Easy)
14. Community homes are connected to _______ major roads. (Easy)
15. A good home gives _______ and _______. (Easy)
16. The government builds _______ houses for the poor. (Easy)
17. Individual houses are usually built by _______ themselves. (Easy)
18. Parks, hospitals, community halls are in _______ houses. (Easy)
19. _______ lights provide light at night. (Easy)

20. Electricity can be generated from _______ fuel. (Easy)

III. State true or false to the following questions (easy)

21. Community houses are built only in villages.
22. The earliest man lived in multi-storey edifices.
23. Community housing schemes control population growth.
24. Street lights are common in residential areas.
25. Only the rich can live in community houses.
26. All facilities will be available in individual homes.
27. The government has set up housing boards for construction of houses in cities.
28. The adjoining houses become community houses.
29. Fire accidents occur in multi-storeyed buildings.
30. It is possible to generate electricity from solar energy.
31. There is no need for proper drainage system in rural households.
32. The earliest shelters of humans were made of glass and cement.
33. A good home brings health and happiness.
34. Winding lanes are usually found in residential areas.
35. Clean drinking water is easily available in all rural households.

IV. 36. Match the following. (Medium)

Set 1:

	A	B
1.	Early humans	Residence of multiple families
2.	Community Home	He lived in caves
3.	Street lights	Useful for meetings
4.	Community Hall	Useful for generating electricity
5.	Solar Energy	Night light

Set 2:

	A	B
1.	Poor sanitation	Needs of Life
2.	Vegetable shop	Health issues
3.	Sewerage System	Physical exercise
4.	Jim	Resting Place
5.	Park	Waste Water Management

Set 3:

	A	B
1.	A good house	Danger in multi-storey edifices
2.	Fire accident	Health, peace
3.	Movement of air	Responsible for the construction of the house
4.	Government	Bio-Manure
5.	Garbage manure	Useful for respiration

Set 4:

A	B
1. Urban problem	Lack of toilet
2. The problem of rural areas	Garbage disposal problem
3. Cement terrace house	Made from soil and leaf
4. Hut	Basic amenities available
5. Community Homes	Strong shelter

Set 5:

A	B
1. Health Centre	Game Location
2. Playground	Treatment Center
3. Electricity	Daily Needs
4. store	Entertainment Center
5. Theatre	Light for the house

V. Answer the following questions (one-mark questions)

37. What was a child's first school? (Easy)
38. Name any one of the objects used in the initial shelters.(Easy)
39. What is residence? (Easy)
40. Who builds individual houses? (Easy)
41. State a common feature of habitation (easy).
42. What is the purpose of street lights? (Easy)
43. Name a facility located in community homes. (Easy)
44. Name one problem of rural households. (Easy)
45. What can we get from solar energy? (Easy)
46. What are the requirements for a good home? (Easy)

VI. Answer the following questions (two marks questions)

47. Mention the two purposes of community homes. (Easy)
48. Write down the two materials required to build a house with a tiled roof. (Easy)
49. Name two problems of urban habitation. (Easy)
50. Mention any two features of a good house. (Easy)
51. What is the use of garbage disposal system? (Easy)
52. Why did early humans live in caves? (Easy)
53. Write down the two facilities in community homes. (Easy)
54. What is rainwater harvesting? (Easy)

VII. Answer the following questions (three marks questions)

55. Write down any three differences between individual and community settlements. (Hard)
56. Explain any three problems of rural settlements. (Hard)
57. What are the benefits of good air and lighting in homes? (Hard)
58. Explain the three facilities available from community housing schemes. (Hard)
59. Why does the family need a house? (Hard)

VIII. Answer the following questions (four marks questions)

60. Explain the four benefits of community homes. (Hard)
61. Explain the four major problems of urban habitation. (Hard)
62. Explain the four qualities required for a good home. (Hard)
63. Explain the facilities required for a good rural residence. (Hard)
64. How do community homes contribute to population control? (Hard)

IX.Project Task (Four Marks Question) (Medium)

65. Paint the picture of the following house and share it with the classmate and teacher in the class.



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Lesson – 11. Nature of Matter

Learning Outcomes:

By the end of this lesson, students will be able to:

1. Define matter and understand that everything around us is made of matter.
2. Identify and classify different materials (matter) based on their properties such as hardness, softness, solubility, and brittleness.
3. Explain that matter is made up of very small particles called particles.
4. Recognize the three states of matter — solid, liquid, and gas — and describe their characteristics.
5. Demonstrate that matter occupies space and has mass.
6. Describe how matter change states when heated or cooled (melting, boiling, condensation, freezing).
7. Understand the concepts of expansion and contraction of matter when heated or cooled.
8. Perform simple experiments to observe the properties and changes in matter.
9. Explain the concept of sublimation with examples like naphthalene.
10. Identify examples of solids, liquids, and gases from everyday life.
11. Describe how particles are arranged differently in solids, liquids, and gases.
12. Understand that air is matter and it has weight.
13. Explain that matter cannot occupy the same space at the same time as another matter.
14. Develop observational skills through activities related to properties of matter.

I. Choose the correct option and answer the following questions

1 What is an object scientifically called? (Easy)

a) Energy

b) Matter

c) Atomic

d) Particle

2 Which object does not have a definite shape and size? (Easy)

a) Solid

b) Liquid

c) Gas

d) Matter

3 What happens when a solid is heated? (Easy)

a) Changes directly to the gaseous state.

b) Changes to liquid state.

c) shrinks.

d) Nothing changes.

4 __________ is the mass of an object in unit size ? (Easy)

a) Pressure

b) buoyancy

c) Density

d) Mass

5 . What causes the blade to sink when it is placed vertically on water? (Easy)

a) Its mass is less.

b) The pile is spread over a small space

c) The pile is spread over a large area.

d) The density of water is high.

II. Fill in the blanks

66. Everything we see or touch around us is called __________. (Easy)
67. Matter holds __________ (space/weight). (Easy)
68. Matter has __________ (weight/shape). (Easy)
69. The shape of the cube is __________ (constant/variable). (Easy)
70. The liquid takes __________ (shape/weight) of its vessel. (Easy)
71. Air fills the __________ (space/weight) of its vessel completely. (Easy)
72. Air is an example of a __________ (solid/liquid/gas). (Easy)
73. Water is a __________ (solid/liquid/gas). (Easy)
74. Wood is a __________ (solid/liquid/air). (Easy)
75. Matter that cannot be seen directly as air is called _________ matter. (Easy)
76. The matter that we can see and touch is called __________ matter. (Easy)
77. The three states of matter are __________, __________ and __________.Easy)
78. The weight of an object is called __________. (Easy)
79. The liquid changes its shape but does not change __________. (Easy)
80. Gas does not contain __________ or __________. (Easy)

III. State true or false to the following questions

81. Matter does not occupy space. (Easy)
82. Cubes have a constant shape and size. (Easy)

83. Liquids have a stable shape. (Easy)
84. Air/air can be easily seen. (Easy)
85. Water is a liquid. (Easy)
86. Air is a gas. (Easy)
87. Matter has no weight. (Easy)
88. The cubes take the shape of their vessel. (Easy)
89. Liquids flow from one vessel to another. (Easy)
90. Anis have a definite shape. (Easy)

IV. 31.Match the following. (Medium)

a	B
1. Solid	Has a fixed shape
2. Liquid	Matches the shape of a vessel
3. Gas	Matches the shape of the vessel
4. Air	Has a fixed shape
5. Water	Occupies the entire space
6. Tree	Occupies the entire space.

V. Answer the following questions (one-mark questions)

32. What is matter? (Easy)
33. Name the three states of matter. (Easy)
34. Give an example of a solid. (Easy)
35. Give an example of a liquid. (Easy)
36. Give an example of air. (Easy)
37. Does matter have weight? (Medium)
38. Can gases be seen? (Medium)
39. Which matter has a fixed shape? (Medium)
40. Which state of matter takes the shape of its vessel? (Medium)
41. Which state of matter occupies the entire space? (Medium)

VI. Answer the following questions (two marks questions)

42. Write two characteristics of a cube. (Medium)
43. Write down the two properties of a liquid. (Medium)
44. Write down the two characteristics of air. (Medium)
45. Write the difference between a solid and a liquid. (Medium)
46. Why do gases fill the entire available space? (Medium)
47. Why do liquids not have a stable shape? (Medium)
48. Give an example of three solids. (Medium)
49. Give an example of three liquids. (Medium)
50. Give two examples of visible matter and unseen matter. (Medium)
51. What happens to the shape of water when it is poured into a glass? (Medium)

VII. Answer the following questions (three marks questions)

52. Explain the three states of matter with examples.(Hard)
53. How can you know that air is matter? (Hard)
54. Explain the difference between solid, liquid and air according to shape and volume. (Hard)

55. Write a short note on the properties of a liquid. (Hard)
56. Explain with examples the meaning of "matter occupies space and has weight". (Hard)
57. Why can't solids retain their shape but liquids and gases can't retain their shape? (Hard)
58. Give examples of three solid, liquid and gaseous substances around you. (Hard)
59. How is the shape of a gas different from that of a cube? (Hard)
60. Explain how matter changes from one state to another. (Hard)
61. Explain the visible and unseen objects and give examples. (Hard)

VIII. Answer the following questions (four marks questions)

62. Explain the properties of solids, liquids and gases with examples. (Hard)
63. Explain the experiment showing that a liquid takes the shape of its vessel. (Hard)
64. Discuss that gases are not visible but we know why they exist. (Hard)
65. How important is matter in daily life? Give examples in the form of solids, liquids and gases. (Hard)
66. Write a detailed note on the states of matter and their properties. (Hard)
67. How are solids, liquids and airs different in terms of shape and volume? (Hard)
68. Explain an experiment to show that air has weight and occupies space. (Hard)
69. What are meant by "visible matter" and "invisible matter"? Explain with examples. (Hard)
70. What is the difference between the physical and chemical properties of matter? (simply explain) (Hard)
71. How are the properties of matter useful for our daily life? Explain with examples (Hard)

IX. Project Task (Four Marks Question) (Hard)

72. List five or five examples of three states of matter, solids, liquids and gases in the following table.

Solid	Liquid	Gas
1.		
2.		
3.		
4.		
5.		

******

Lesson – 12. Elements, Compounds and Mixtures

Learning Outcomes:

After studying this lesson, students will be able to:

1. Define and explain what elements, compounds, and mixtures are.
2. Classify matter into elements, compounds, and mixtures based on their characteristics.
3. Understand that elements are made up of atoms having the same properties and cannot be chemically broken down further.
4. Identify examples of natural and artificial elements.
5. Explain that compounds are formed when two or more elements chemically combine in a fixed ratio to form a substance with new properties.
6. Write and interpret molecular formulas that represent the number and type of atoms in a compound (e.g., H_2O for water).
7. Recognize that the properties of a compound are different from the properties of the elements that form it.
8. Describe that mixtures consist of two or more substances (elements or compounds) physically mixed without chemical change.
9. Understand that in mixtures, the individual substances retain their original properties and can be separated by simple physical methods.
10. Differentiate between compounds and mixtures by comparing their formation, properties, and methods of separation.
11. Give everyday examples of elements, compounds, and mixtures.
12. Recognize that elements, compounds, and mixtures can exist in solid, liquid, or gaseous states.
13. Appreciate the importance of chemical combinations in forming compounds useful in daily life (e.g., salt formed from poisonous sodium and chlorine).
14. Develop observational and classification skills by examining different substances around them.

I. Choose the correct option and answer the following questions

1 Which cannot be chemically decomposed? (Easy)

(a) Element

b) Compound

c) Mixing

d) Matter

2 What is the substance formed when two or more elements combine chemically in a certain proportion? (Easy)

(a) Element

b) Mixing

c) Compound

d) Atomic

3 Which compound is formed by chemically combining hydrogen and oxygen in the ratio 2:1? (Easy)

a) Carbon dioxide

b) Salt

c) Water

d) Sugar

4 In what form are the constituent substances of a mixture? (Easy)

a) Have chemically new properties.

b) Retains their original characteristics.

c) They are mixed only in certain quantities.

d) Have only one type of atoms.

5 Which of the following is an example of a mixture? (Easy)

a) Iron

b) Sugar

c) Soil

d) Water

II. Fill in the blanks

6. The original matter is composed of a group of similar______________. (Easy)
7. The smallest fraction of the original matter is called ______________. (Easy)
8. Compounds are formed by combination______________. (Easy)
9. Mixtures are formed by mixtures______________ mixtures. (Easy)
10. What is the molecular formula of water? ______________(easy)
11. Soil is one______________ example. (Easy)
12. The basic substances are divided into ______________ and______________. (Easy)
13. ______________ and_____________ are toxic, but the salt formed from them is not toxic. (Easy)
14. The compound has its properties______________ by its elements. (Easy)
15. Mixtures can be separated by ______________ methods. (Easy)
16. The elements in the compound______________ are included in the ratio. (Easy)
17. The molecular formula shows the ______________ of molecules. (Easy)
18. Air is a mixture of different ______________. (Easy)
19. It is made up of sugar______________, ______________ and______________. (Easy)
20. ______________ is an example of an element in liquid form. (Easy)

III. State true or false to the following questions

21. Elements can be chemically broken down. (Easy)
22. All mixtures are formed by chemical reaction. (Easy)
23. Water is a compound made up of hydrogen and oxygen. (Easy)
24. Mixtures retain the properties of their elements. (Easy)
25. The compound has the properties of its elements. (Easy)
26. Soil is a compound. (Easy)
27. Salt is a compound formed from sodium and chlorine. (Easy)
28. Compounds can be easily separated. (Easy)
29. Mixtures can be separated by simple methods. (Easy)
30. Gold is an artificial substance. (Easy)
31. Different molecules combine to form a compound. (Easy)
32. Sugar is a compound. (Easy)
33. Air is a compound. (Easy)
34. Elements are not manufactured in a laboratory. (Easy)
35. Mixtures have an ever-constant ratio. (Easy)

IV. 36. Match the following.

1 substance and its type (Medium)

A (substance)	B (Type)
1. Iron	a) Compound
2. Water	b) Non-Loha
3. Soil	c) Element
4. Oxygen	d) Metal
5. Salt (NaCl)	e) Mixing
6. Air	f) Compound

2. Add an example to the status

A (Status)	B (example)
1. Solid	a) water
2. Liquid	b) Oxygen
3. Gas	c) sugar

3. Arrange the words according to the descriptions

A (Description)	B (word)
1. Cannot be chemically decomposed	a) Mixing
2. Can be separated by simple methods	b) Compound
3. Formed by the chemical composition of the elements	c) Element

A (Description)	B (word)
4. There is a constant ratio of molecules	d) Mixing
5. Retains the basic characteristics	e) Compound

V. Answer the following questions (one-mark questions)

37. What is the smallest unit of basic matter? (Easy)
38. Give an example of any one element. (Easy)
39. Give an example of a compound that is used on a daily basis.(Easy)
40. What is the molecular formula of water?Easy)
41. What type of substance is air?Easy)
42. Name a natural element.(Easy)
43. Name an artificial substrate.(Easy)
44. Is the soil a mixture or a compound?Easy)
45. Name the two types of elements.(Easy)
46. What is the substance formed when two elements are combined?Easy)

VI. Answer the following questions (Two marks questions)

47. Write two differences between compounds and mixtures.(Medium)
48. Give one or two examples for each: element, compound, mixture.(Medium)
49. Explain the element with an example.(Medium)
50. Explain the compound with an example.(Medium)
51. Explain the mixture with an example.(Medium)
52. What is a molecular formula? Give an example.(Medium)
53. Write the two characteristics of mixtures.(Medium)

VII. Answer the following questions (Three marks questions)

54. Write the three differences of an element, compound and mixture. (Hard)
55. Give three examples of each one – element, compound, mixture. (Hard)
56. Explain that elements exist in solid, liquid and gaseous forms. (Hard)
57. Write the three properties of the compound. (Hard)
58. Write down the three characteristics of the mixture. (Hard)

VIII. Answer the following questions (four marks questions)

59. Explain the difference between elements, compounds and mixtures with examples. (Hard)
60. Calculate three examples for each category of solid, liquid, gas-element, compound, mixture. (Hard)
61. Explain the main differences between compounds and mixtures.
62. Explain how salt formed from toxic substances became a usable compound. (Hard)
63. How do mixtures retain basic properties? Explain with an example. (Hard)

IX. Project Work (Four Marks Question)

64. Observe the following and give an example for each of them

Element	Compound	Mixing
1		
2		
3		
4		

Lesson – 13. Amazing Energy

Learning Outcomes:

By the end of this lesson, students will be able to:

1. Define the concept of a community and explain its importance in our daily lives.
2. Identify different types of communities such as family, school, neighborhood, and village or town.
3. Describe the roles and responsibilities of individuals in various communities.
4. Recognize how members of a community depend on each other for various needs and services.
5. Explain the importance of cooperation and teamwork within a community.
6. List various community helpers and describe their contributions to society.
7. Understand the value of diversity in a community and appreciate the differences among people.
8. Describe the ways in which communities solve problems and maintain harmony.
9. Identify how community resources are shared and conserved for the benefit of all members.
10. Demonstrate respect and care for the environment and people in their community.

I. Choose the correct option and answer the following questions .

1 Which is not a source of energy? (Easy)

a) Solar Energy

b) Air

c) Water

d) Stone

2 What energy does the water stored in a dam have? (Easy)

a) Kinetic energy

b) Hidden Power

c) Thermal energy

d) Muscle strength

3 From what do we get the energy we need to do everything? (Easy)

a) Clothing

b) Food intake

c) Sleep

d) Game

4 What is the energy obtained from the sun called? (Easy)

a) Thermal energy

b) Wind Energy

c) Solar Energy

d) Chemical energy

5 What is an example of a chemical reaction in which energy is produced? (Easy)

a) Cooking

b) Heating water

c) Power generation in electric cells

d) Wind power generation

II. Fill in the blanks

6. We need ________ to do all the work. (Easy)
7. _______ is the earth's source of energy. (Easy)
8. The energy obtained from the sun is called energy________ (Easy)
9. ________ fuels are limited and are formed over millions of years. (Easy)
10. Produced by the energy of wind________ . (Easy)
11. We get energy through ___________. (Easy)
12. _______ energy is renewable energy. (Easy)
13. _______Energy is non-renewable energy. (Easy)
14. Sunkites are made from sunlight________ . (Easy)
15. Using public transport________ helps to save. (Easy)
16. The water from ________ heater is warmed by the energy of the sun. (Easy)
17. From flowing water________ energy is generated. (Easy)
18. ________ tool is used to dry food. (Easy)
19. Choosing unused electrical appliances________ saves energy. (Easy)
20. ________ energy comes from animal excreta and plants. (Easy)

III. State true or false to the following questions

21. It doesn't take energy to play. (Easy)
22. The sun is a source of energy. (Easy)
23. Residual fuels can be renewable soon. (Easy)
24. The solar cooker works on electricity. (Easy)
25. Electrical energy is generated from wind wheels. (Easy)
26. It is advisable to keep the nozzle and lights on even when not in use. (Easy)
27. Biofuel is renewable energy. (Easy)
28. Coal and petrol are renewable energy. (Easy)
29. Energy is required only in factories. (Easy)
30. It is everyone's responsibility to save energy. (Easy)

IV. 31.Match the following. (Medium)

a	B
1. Solar Map	a. Running water

a	B
2. Wind wheel	b. Sunlight
3. Jal Shakti	c. Wind Energy
4. Fossil fuels	d. Power generation
5. Solar dryer	E. Coal and Petrol
6. Public Transport	f. Energy for the body
7. Food	r. Saving fuel

V. Answer the following questions (one-mark questions)

32. What is Energy? (Easy)
33. Give an example of a renewable energy. (Easy)
34. Give an example of a non-renewable energy. (Easy)
35. What is the star that gives us strength? (Easy)
36. Write down a use of solar energy. (Easy)
37. What is used to dry food? (Easy)
38. Write down a way to save energy. (Easy)
39. Where does the body get energy? (Easy)
40. What do you get from the wind wheel? (Easy)
41. What is the energy obtained from plants and animals? (Easy)

VI. Answer the following questions (two marks questions) (Medium)

42. Write two examples of renewable and two non-renewable energy.
43. How does solar energy help in daily life?
44. Write down two ways to save energy at home.
45. What is bioenergy? Give an example.
46. What happens if we waste energy?

VII. Answer the following questions (three marks questions)

47. Explain the difference between renewable and non-renewable energy with an example.
48. Write down the three uses of solar energy.
49. Write down three tasks that require energy in daily life.
50. How can children in school be helped to save energy?

VIII. Answer the following questions (four marks questions)(Hard)

51. Explain the four sources of energy and their uses. (Hard)
52. Explain the benefits of using renewable energy. (Hard)
53. Write down four steps you can follow to save energy in your diary. (Hard)
54. Explain how important energy is to humans (hard)

IX. Project Task (Four Marks Question) (Hard)

55. Slit a large water bottle (plastic) in half and drill two holes in their ribs and insert a hard stick of two lengths.Drill a hole in the middle of either side and stick the lids of the bottles (like a tyre) and tie a long thread to the mouth of the bottle. Fill the bottle with soil, plant small saplings in it, place a doll in front of it and pull the bottle with the help of a thread. (Hard)

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Lesson – 14. The Sky

Learning Outcomes:

After studying this lesson, students will be able to:

1. Identify the Sun and its family (Solar System) and name the planets in order from the Sun.
2. Explain the characteristics of the Sun and its importance for life on Earth.
3. Describe the shape and size of the Earth and understand why it is called a geoid.
4. Understand the Earth's movements — rotation and revolution — and explain how these cause day and night, and the year.
5. Describe the features of the eight planets including facts about Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune.
6. Explain the difference between the geocentric and heliocentric models of the solar system.
7. Understand what meteoroids, asteroids, and comets are, and describe their characteristics.
8. Describe the Moon as the Earth's natural satellite and explain its movements — rotation and revolution.
9. Explain the phases of the Moon and how the Moon reflects sunlight.
10. Recognize why Earth is a unique planet with ideal conditions to support life.
11. Develop basic observational skills by watching the sky and identifying stars, shooting stars, and other celestial phenomena.
12. Engage in activities that demonstrate the movements of the Earth and planets to better understand their orbits and rotations.

I. Choose the correct option and answer the following questions

1 What is the center of the solar system? (Easy)

a) Land

b) Moon

c) Sun

d) Mars

2 What is the total number of planets in the solar system? (Easy)

(a) 9

(b) 7

(c) 8

d) 6

3 How long does it take for the Earth to rotate one revolution on its axis? (Easy)

a) 12 hours

b) 24 hours

c) 365 days

d) 88 days

4 What is called the "red planet"? (Easy)

(a) Venus

(b) Mars

(c) Guru

d) Saturn

5 What is earth's only natural satellite? [(Easy)

(a) Mars

(b) Guru

c) Moon

(d) Sun

II. Fill in the blanks (Easy)

6. ____ is the largest star on Earth. (Easy)
7. ____ rotates around the earth. (Easy)
8. ____ is the largest planet in the solar system. (Easy)
9. _____ They appear and shine at night. (Easy)
10. ______ is the only planet that gives life to living beings. (Easy)
11. The family of the sun is called __________. (Easy)
12. Earth is the __________ planet from the Sun in the solar system. (Easy)
13. __________ is the characteristic shape of the earth, which is slightly flat at the poles and slightly bulging near the equator. (Easy)
14. __________ the brightest planet in the solar system. (Easy)
15. Mars is also known as __________ planet because of its red soil. (Easy)

III. State true or false to the following questions

16. Stars are self-luminous celestial bodies. (Easy)
17. The Sun appears larger and brighter than other stars because it is closer to the Earth. (Easy)
18. According to the geocentric model, the sun and other days revolve around the earth. (Easy)

19. The planets produce their own light. (Easy)
20. The total surface area of the Earth is 510 million square kilometers. (Easy)
21. Pluto is still considered the ninth planet in the solar system. (Easy)
22. Venus is smaller than Earth. (Easy)
23. The moon produces its own light. (Easy)
24. A year is defined as the time it takes for the Earth to rotate once on its axis. (Easy)

IV. 25. Match the following. (Medium)

a	B
1. Mars	a) Earth satellite
2. Moon	b) Red Planet
3. Sun	e) Convenient for living beings
4. Earth	d) Lightning objects
5. Stars	e) Light gives warmth

V. Answer the following questions (one point)

26. What is the sun? (Easy)
27. Which planet do we live on? (Easy)
28. What can we see in the sky at night? (Easy)
29. What is the moon? (Easy)
30. Why do stars shine? (Easy)

VI. Answer the following questions (Two marks questions)

31. Write down the two features of the moon. (Easy)
32. What is a star? (Easy)
33. Name any two planets and write each of the qualities. (Easy)
34. What is the solar system? (Easy)
35. What is the approximate diameter in the equator of the Earth?
36. Which planet is known as the "morning spot" or "evening dot"?
37. What is the common name for debris that enters the Earth's atmosphere and looks like a line of light?
38. Which celestial bodies are found between the orbits of Mars and Jupiter?
39. What is earth's only natural satellite?

VII. Answer the following questions (three marks questions)

40. Explain the sun and its significance.(Hard)
41. Write the names of the five planets in the solar system. (Hard)
42. Explain the difference between stars and planets. (Hard)

VIII. Project Work (Four Marks Question) (Hard)

43. Make a model of the solar system using cardboard, paper balls and colours.Write the names of the sun's family.Join your friends in the class and do the activity with the help of your teacher)

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Lesson – 15. Our India - Physical Diversity

Learning Outcomes:-

By the end of this lesson, students should be able to:

1. Understand the physical diversity of India

- **Identify and explain the major physical divisions of India:**
  1. Northern Mountains (Himalayas)
  2. Northern Horizontal Areas
  3. Southern Plateau
  4. Coastal Horizontal Areas
  5. Desert (Thar Desert)
  6. Islands (Andaman & Nicobar, Lakshadweep)
- **These features will be identified on the physical map of India.**

2. Himalayan Mountains

1. Describe the features of the Himalayan range (snow-capped peaks, valleys, glaciers).
2. They will understand the importance of the Himalayas (the origin of rivers, stopping the cold air and bringing rain).
3. **Mount Everest, Kanchenjunga, and K2 peaks are identified.**

3. Northern Horizontal Areas

1. The northern plains are known as the food repositories of India.
2. Name the major rivers (Ganga, Yamuna, Brahmaputra) and their importance in agriculture.
3. He explains how these horizontal areas influenced the Harappan, Mauryan and Mughal empires.

4. Southern Plateau

1. **He distinguishes between** the Malwa plateau and the southern plateau (Deccan).
2. The major mountain ranges are named (Aravalli, Vindhya, Satpura, Western and Eastern Ghats).
3. They will understand the mineral wealth and historical significance of the Chalukya, Vijayanagara Empire.

5. Coastal horizontal areas and islands

1. **He distinguishes between the western coastal plain (Konkan,** Malabar) **and the east coast plane (Coramandala,** Sarkar).
2. The major ports are named (Mumbai, Chennai, Mangalore, Kochi).
3. Identify the lifestyle, food habits and occupations (fishing, coconut crop) of the coastal people.

6. Thar Desert

1. **Describing the features of the Thar Desert (hot weather**, sandy hills, osis).
2. Explain how people and animals (camels) adjust in the desert.
3. **Jaipur, Jaisalmer, and Mount Abu are known as important desert cities.**

7. Rivers of India

1. Rivers are classified into **North India (Indus, Ganga,** Brahmaputra) **and South India (Godavari, Krishna, Cauvery, Narmada,** Tapi).
2. **Understand the difference between perennial (Himalayan) and seasonal (southern) rivers.**
3. **They will discuss pollution and conservation efforts of Ganga-Yamuna rivers.**

8. Weather and Seasons

- The four seasons of India are identified:
    1. **Winter (December-February)**
    2. **Summer (March-May)**
    3. **Southwest Monsoon (June-September)**
    4. **Retreating monsoon (October-November)**
- Explain how monsoon winds affect agriculture.
- **Identify areas prone to heavy rainfall (Mausinram, Western Ghats)** and drought.

9. Biodiversity and Conservation

1. Naming different types of forests (Parnapati, Sadabahara, Mangrove).
2. **Identify protected wildlife sanctuaries (Gir, Kaziranga, Sundarbans).**
3. **List endangered animals (tiger, elephant, rhinoceros).**
4. **Understand the effects of deforestation and the need for conservation.**

10. Human-Environment Relationship

1. **Explain how physical features influence culture, food, clothing and architecture (e.g. sloping roofs in coastal areas**, sangam tree buildings in Rajasthan).
2. **They will discuss environmental challenges (river pollution, deforestation,** climate change).
3. **Suggest ways to protect natural resources (purification of rivers)**, Tree planting, wildlife conservation).

I. Choose the correct option and answer the following questions

1 Which is the highest peak in the world? (Easy)

a) Mount Godwin Austin (K2)

b) Mount Everest

(c) Mullayanagiri

(d) Anaimudi

2 Which region is known as the "food granary" of India? (Easy)

a) Northern Mountains

b) Coastal plains

(c) Northern Plains

d) Plateaus

3 Where do the Western Ghats and the Eastern Ghats meet? (Easy)

a) Anamalai Hills

(b) Palani Hills

c) Nilgiri Hills

d) Kardamam Hills

4 Which of the major ports in the western coastal region of India belongs to Karnataka? (Easy)

(a) Kandla

(b) Mumbai

(c) New Mangalore

(d) Kochi

5 Which is the largest salt lake in the Thar Desert? (Easy)

a) Sambar

(b) Didwana

(c) Saragol

(d) Pushkar

II. Fill in the blanks

6. __________ is the highest mountain peak in India . (Easy)
7. The northern plains are formed by the deposition of __________ by rivers. (Easy)
8. The plateau of South India is situated on the __________ side of the Narmada river. (Easy)
9. The Western Ghats and the Eastern Ghats meet in __________ hills. (Easy)
10. The Thar Desert is mainly located in the state of __________. (Easy)
11. The source of river Ganga is __________ glacier. (Easy)
12. The eastern coastal plain of India is called the __________ coast. (Easy)
13. The retreating monsoon season occurs in __________ and November. (Easy)
14. __________ is known as the "ship of the desert". (Easy)
15. The Sundarbans mangrove forest is located in the delta of the river __________. (Easy)

III. State true or false to the following questions

16. The Himalayan mountains are the oldest mountains in the world. (Easy)
17. The northern horizontal areas are suitable for agriculture. (Easy)
18. The Western Ghats are higher than the Eastern Ghats. (Easy)
19. The Thar Desert receives heavy rainfall during the monsoon. (Easy)
20. The Brahmaputra river joins the Arabian Sea. (Easy)
21. Mumbai is an important port on the east coast of India. (Easy)
22. Mawsynram in Meghalaya receives the highest rainfall in India. (Easy)
23. The plateau areas are rich in mineral wealth. (Easy)
24. Camels have dense wool to survive in the desert. (Easy)
25. The Narmada river flows westwards and joins the Arabian Sea. (Easy)

IV. 26. Match the following. (Medium)

Pillar A	Pillar B
1. Malwa Plateau	a. Gate of Karnataka
2. New Mangalore Port	b. Snow-capped peaks
3. Oasis	c. The fertile region of the desert
4. Himalayan Rivers	d. Rajasthan
5. Thar Desert	e. Ever-flowing rivers

V. Answer the following questions (one-mark questions)

27. What is the name of the highest peak in South India? (Easy)
28. Which river is known as the "Sorrow of Bengal"? (Easy)
29. What is the type of climate in India? (Easy)
30. Name an animal found in the Himalayan region. (Easy)
31. Which state is famous for gir forest? (Easy)

VI. Answer the following questions (Two marks questions)

32. Why are the northern plains called the "food repository of India"?
33. State two differences between the Western and Eastern Ghats.
34. How do camels adapt to desert conditions?
35. Name the two crops grown in the Thar Desert.

VII. Answer the following questions (three marks questions)

36. How do the Himalayas influence the climate of India? (Medium)
37. Explain the three features of the plateau. (Medium)
38. Why are coastal plains important for India's economy? (Medium)

VIII. Answer the following questions (four marks questions)

39. Explain the major physical divisions of India with examples. (Hard)
40. How does deforestation affect biological diversity? Suggest two ways to conserve forests. (Hard)
41. Explain the causes of river pollution in India. What steps can students take to reduce this? (Hard)

IX. Project Work (Four Marks Question)

42. Mark the following on the map of India: (Hard)
    - Himalayan Range
    - Thar Desert
    - Western Ghats
    - River Ganga
    - Coromandel Coast



Lesson – 16. Our India-Political and Cultural

Learning Outcomes:

By the end of this lesson, students should be able to:

1) Learn about the geographical location of India in the world.
2) Learn about latitudes and longitudes
3) Know the extension of latitude and longitude of India
4) Learn about the water bodies that surround India
5) Learn about India's neighbours
6) Know the meaning and difference between an island and a peninsula
7) The administrative divisions of India such as states and union territories are marked on the map
8) Name the administrative divisions of India such as State and Union Territories
9) Learn to use Globe and Atlas
10) Grasps the meaning of unity and integration in diversity
11) Understand the importance of national symbols of India
12) Get acquainted with Indian art, culture and literature

I. Choose the correct option and answer the following questions

1 What is the rank of India in the world in area? (Easy)

a) 5th

b) 6th

c) 7th

d) 8th

2 In which hemisphere is India completely located? (Easy)

a) Northern Hemisphere and Eastern Hemisphere

b) Southern Hemisphere and Western Hemisphere

c) Northern Hemisphere and Western Hemisphere

d) Southern Hemisphere and Eastern Hemisphere

3 How many states and union territories are there currently in India? (Easy)

a) 29 States and 7 Union Territories

b) 28 States and 9 Union Territories

c) 27 States and 8 Union Territories

d) 30 States and 6 Union Territories

4 The national emblem of India is chosen from which of the following? (Easy)

(a) Gandhiji's charkha

b) To simhabodhi of Ashoka Pillar at Sarnath

c) Taj Mahal

d) Mount Everest

5 Who composed the National Anthem of India? (Easy)

(a) Bankim Chandra Chatterjee

(b) Subramanya Bharathi

(c) Rabindranath Tagore

d) Mahatma Gandhi

II. Fill in the blanks

6. The year our country got independence....... (Easy)
7. Our country......... (Easy)
8. .... My country (easy)
9. It is the largest continent in the world...... (Easy)
10. India is the largest continent in the world...... Located in the southern part of the continent (easy)
11. The circle that divides India into northern and southern parts....... (Easy)
12. The land surrounded by water.... called (easy)
13. The year in which the states were reorganized on the basis of the language spoken by the majority of the people in the respective provinces of India.... (Easy)
14. India is a democratic world........ is the largest country (easy)
15. ..... Is the capital of India (easy)
16. It is the capital of our state of Karnataka....... (Easy)
17. .... But states are divided into (easy)
18. .... A symbol of progress and movement (easy)

III. State true or false to the following questions (easy)

19. We Indians are brothers and sisters
20. Sri Lanka is an island nation
21. 10 languages printed on the back of India's official notes
22. India is a confluence of many religions
23. Our national anthem was written by Kuvempu
24. To the west of India lies the Indian Ocean

III. 25. Match the following. (Medium)

A	B
1. Peninsular	Lakshadweep
2. Union Territory	Lion Capital
3. Yakshagana	India
4. National Emblem	Karnataka

V. Answer the following questions (one-mark questions)

26. When did India get independence? (Easy)
27. Which position of India in the world in area? (Easy)
28. How many kilometers long coastline does India have in total? (Easy)
29. What is a peninsula? (Easy)
30. What is an island? (Easy)
31. In which year were the states reorganized considering the language spoken by the majority of the people in India? (Easy)
32. How many languages are considered official languages in India? (Easy)
33. Which is the official language of The State of Karnataka? (Easy)
34. Where is the headquarters of the Central Government located? (Easy)
35. Which is the capital of India? (Easy)
36. Write the meaning of integration? (Easy)
37. What are the colours of our national flag? (Easy)
38. Build a monolithic pillar at Sarnath (easy)
39. Who is the Emperor? (Easy) (Easy)
40. Who wrote our national anthem? (Easy)

VI. Answer the following questions (two marks questions) (Medium)

41. What is the extent of latitude and longitude of India in Asia? **(Medium)**
42. What are the water bodies that surround India? **(Medium)**
43. Which islands are located in the western and eastern waters of India? **(Medium)**
44. How many states and union territories are there in India? **(Medium)**
45. Which Union Territories are not under the direct rule of the Central Government? **(Medium)**
46. What are the major religions in India? **(Medium)**
47. What are the awards given to those who have rendered exemplary service in various fields in India? **(Medium)**

VII. Answer the following questions (Three marks questions)

48. What are india's neighbours? (Hard)
49. What is an island? Which are the islands of India? (Hard)
50. What are the nine tribal regions of India? (Hard)
51. Write the major dance forms of south Indian states? (Hard)

VIII. Answer the following questions (Four marks questions)

52. Name our national festivals (Hard)
53. What do the colours and wheel in our national flag signify? (Hard)
54. Observe the relationship of the first two words and write the fourth word that corresponds to the third term (Hard)
    i. Kerala : South : Ladakh : ________________________
    ii. India: New Delhi : Karnataka : ________________________
    iii. Union Territories : 9 : States : ________________________
    iv. Bay of Bengal: East: Arabian Sea : ________________________

IX. Project Work (Four Marks Question)

55. Mark union territories of Jammu and Kashmir, Delhi, Diu Daman, Lakshadweep and Puducherry on the map of India (Hard)



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Sample Answers

Lesson 1. Living World

I. Choose the correct option and answer

1. leg
2. Carbon dioxide
3. 120
4. coconut
5. Photosynthesis

II.Spacing

6. Cells
7. Photosynthesis
8. A flower
9. Mishrahari
10. Excretion
11. Directory
12. Perennial
13. Non-vegetarian
14. Nagarahole
15. Ranganathittu
16. Organisms
17. are dependent
18. Annual
19. Ayushkala
20. Stem

III. Right or False

21. Inanimate things can move and grow.—**Wrong**
22. All animals make their own food.—**Wrong**
23. Drocera is an insectivorous plant.—**Ok**
24. Plants do not excrete waste.—**Wrong**
25. Perennial plants complete the life cycle in one season.—**False**
26. Ranganathittu Bird Sanctuary is located in Karnataka—**ok**
27. Bandipur is a biological park—**wrong** (it's a national park)
28. Humans are omnivores.—**Okay**
29. All organisms respond to stimuli.—**Ok**
30. Respiration is called excretion.—**Wrong**

IV.31.Match the following.

a	**B**
1. Photosynthesis	c. Green plants
2. Cow	C. Vegetarian
3. Lion	a. Non-vegetarian
4. Man	b. Mishrahari
5. Drocera	D. Insectivorous plant

.

Answers: 1 – E, 2 – C, 3 – A, 4 – B, 5 – D

V. one-mark questions

32. Cell (particle)cell (this term can be used if necessary)

33. Man
34. Carbon dioxide
35. Bandipur National Park
36. Mango tree
37. Environment is the nature and artificial environment around which organisms live. It includes air, water, soil, plant, animal and other factors.
38. The body of organisms is made up of cells (cells).
39. Photosynthesis is the process by which plants make food (glucose) from water and carbon dioxide using sunlight.
40. Heterotrophs are organisms that feed on other plants or animals.
41. Reproduction is the process by which organisms produce new organisms just like themselves.
42. Salamarada Thimmakka hails from Shivamogga district of Karnataka.
43. Plants depend on oxygen gas to breathe.
44. Examples: Neptune plant, Sundew, pitcher plant, Venus flytrap.
45. Solar energy is the energy used by converting light or heat from the sun into energy.

VI. Two marks questions

46. Growth and respiration
47. Animals that eat only plants are called herbivores e.g. cow
48. Protected area for birds. E.g. Ranganathittu Bird Sanctuary
49. Organisms grow, non-living things do not grow.
    Living beings breathe, non-living things do not breathe.
50. In respiration, oxygen in, carbon dioxide out
51. Sunlight, water, carbon dioxide, green phosphorus
52. Increase in size and number of cells
53. The growth of organisms is the gradual increase in the shape, size and weight of the body of an organism. It occurs as a result of an increase in the number and size of cells.
54. To find food, to escape danger
55. Kidneys, lungs, skin
56. Reproduction from seed or stem
57. Touch-me-not folds to plant touch; Animals run
58. To maintain the balance of the environment
59. For the conservation of life and nature

VII. Three marks questions

60. **Three characteristics of organisms**
    grow
    Reacts to touch and sound
    reproduce.
61. **Classify these animals: lion, cow, bear.**
    Vegetarian: Cow, mouse
    Carnivorous : Lion, Dog
    Mixer: bear, man
62. Annual: Lasts only for one season. E.g. Grain (rice)
    Divincial: Living in two seasons. E.g. beetroot
    Perennial: Plants that live for many years. E.g. Mango

VIII. 4 marks questions

63. Plants use sunlight, air carbon dioxide, ground water and green pigment *chlorophyll to prepare food. This process takes place in the leaves of the plant. Through this, they prepare food* and release oxygen.
64. **Growth**: Organisms grow in size and become larger.

    Respiration: Energy is obtained from food.

    Movement: Animals move; Plants move leaves or flowers.

    Excretion: Excretion of body waste.

65. **Herbivore**: An animal that eats plants. E.g. cow
    - **Carnivorous**: An animal that eats other animals. E.g. tiger
    - **Omnivorous**: An animal that eats both plant and meat. E.g. man
66. Forests maintain ecological balance.
    - Wildlife helps in biodiversity.
    - Forests provide oxygen and prevent soil slope.
    - The forest is a source of climate control and useful wealth.

******

Lesson-2. Family

I. Choose the correct option and answer

1. Joint Family
2. Triangle
3. From the kitchen line to the standing lines
4. They get the friendship of great-grandfathers and great-grandparents
5. Employment

II. Spacing

6. By Friendship
7. Compressed Family
8. Joint
9. Family
10. For elders and parents
11. Triangle, Circle
12. Life, Happiness
13. More
14. two
15. Structure
16. Emotional

III. Right or False

17. All the members of the family are related to each other. (**OK**)
18. In a joint family, there are only as many members as the joint family. (**Error**)
19. The names of the daughters are written first on the family tree. (**Error**)
20. We learn many qualities from family like care, love, cooperation, etc.(**OK**)
21. A family of two generations is called a joint family. (**Error**)

IV.22.Match the following.

A	B	Answer
1 Joint Family	e. Several generations of family	1 –D
2. Family tree	b. Names of all members	2 –A
3. Grandmother	C. Mother or father's mother	3 –E
4. Help from peers	D. Support and love	4 –C
5. Joint family	a. Two generations	5–B

V. one-mark questions

23. Two generations.
24. A family where grandmother, grandfather, mother, father, children live together in the same house.
25. Square (☐).
26. Seven.
27. Courtesy, cooperation, love etc.

VI. Two marks questions

28. Map showing the introduction of family members through triangle and circle symbols
29. **Divided**: 2 generations, **joint**: 3 or more generations
30. E.g. TV, fridge, rooms
31. Number of members, rituals, roles comparison
32. Guidance and love from elders
33. Triangle = male, circle = female
34. Festivals, Weddings
35. Due to employment, education, urbanization
36. The power of togetherness and relationships

VII. Three marks questions

37. There are grandparents in the family; There will be responsibility sharing and guidance
38. Love, trust, discipline come from family
39. Write the family tree of three generations/Veechyu
40. Elders help children in their development, in decisions
41. Help from friends – e.g. prayer helped in case of an emergency
42. More mock families have emerged due to employment difficulties
43. Triangles and circles can be drawn by connecting them with lines
44. Teaches family partnership, compassion, help

VIII. Four marks questions

45. E.g. During festivals, neighbours help in illness
46. Cooperation in cooking, dusting work – work as a team
47. There may be different rituals, food, language in a friend's family
48. Lifestyle changes have reduced the normality of joint families
49. triangle = male, circle = female; Vertical/horizontal lines to show relationship
50. Emotional support, financial assistance, responsibility sharing
51. Elders are a repository of understanding and values
52. The family caters to the emotional, physical and educational needs
53. Employment, cities, education, lifestyle—all these affect family structures
54. Gurus, doctors, police—all support families in direct/indirect ways

******

I. Choose the correct option and answer

1. Enhances physical and mental health
2. Under extraordinary circumstances
3. Requires more preparation, speed, dexterity and training
4. Adventure games
5. Bachendri Pal

II.Spacing

6. Community
7. Dependent
8. Rural.
9. city
10. Tribal
11. Agriculture
12. For Education
13. With respect
14. religion
15. In Karnataka
16. Same
17. Activities like weeding, manuring, paddy harvesting etc. are related to agriculture.
18. Nirmal Gram Yojana.
19. city
20. Health
21. Intimacy
22. Huge
23. Dairy A
24. Sericulture
25. Even

III. Right or False

26. Members of the community become distant from each other. – **Wrong**
27. Every job in the community has its own value. – **Ok**
28. The majority of the people of the city are engaged in agriculture. – **Wrong**
29. Rural communities are less interdependent than urban communities. – **False**
30. The Soligas are an ethnic group of Mysore district. – **Ok**
31. The feeling of dependency decreases with the growth of the community. – **Ok**
32. Nirmal Gram Yojana for cleanliness of villages. – **Ok**
33. Ethnic people have the same dress style as urban people. – **Wrong**
34. Communities are formed simply by families living together. – **Wrong**
35. Every member of the community is responsible for its development. – **Ok**

36. We should respect only government jobs. – **Wrong**

37. Urban communities face housing and traffic problems. – **Ok**

38. People form a permanent community at the fair. – **Wrong**

39. Teachers and doctors cannot form a community. – **Wrong**

40. Every member of the community is independent. – **Wrong**

IV .41.Set up

A	B
1. Rural Community	a. Ethnic community
2. Soligas	b. Agricultural Work
3. Poultry farming	C. Rearing chickens
4. Urban Community	D. Big Cities
5. Shelter Scheme	e. Housing for the poor
6. Production of umbrellas	F. Rural Employment
7. Underground drainage system	G. Urban Development
8. Sarva Shiksha Abhiyan	H. Education Program
9. ethnic community	i. Forest and hilly areas
10. Interdependence	J . Need for others

V. Answers to one-mark questions

42. A community is a group of people who live together in a particular area, have a natural bond and live in cooperation with each other.
43. 1. Rural Community 2. Urban Community
44. Agriculture (growing crops) is the main occupation of the rural people.
45. Soliga ethnic community
46. In the urban community people are engaged in various occupations, and insurgency, transportation, education and health facilities are good.
47. The honour of work is to treat any work with equal respect and without contempt.
48. An ethnic community is a group of people with a distinct language, culture, practice and way of life.
49. The objective of the scheme is to keep villages clean, increase the use of toilets and prevent open defecation.
50. Sewage problem in overpopulation and localities.
51. Kisan, workers, traders, teachers, doctors and other citizens—all are interdependent (interdependent).

VI. Answers to two marks questions

52.1. Agriculture 2. Mitta Work (Karigari) 3. Animal Husbandry 4. Water Distribution/ Drinking Water System

53.1. Lack of education 2. Less availability of health services

54.1. For employment opportunities 2. For better education and health facilities

55. Ethnic people wear the unique attire of the caste to which they belong and pass on their culture to an entire generation through their traditions, dance, music and rituals.

56. 1. There will be mutual cooperation and natural relations 2. People living in the same environment

57. To provide free and compulsory education to all children in the age group of 6 to 14 years.

58. Everyone lives with each other's help by meeting one person's need – this is called interdependence.

59. 1. Providing food, water and other essential sustenance 2. Providing temporary residence, medical assistance to the affected persons

60. 1. AMRUT (AMRUT – Atal Mission for Rejuvenation and Urban Transformation)
    2. Smart City Project

61. 1. Handicrafts Industry (Industry) 2. Animal Husbandry

VII. Answers to three marks questions

62 1. Habitat: Rural community: Amidst nature, living in a rural area.
   Urban community: Living in a developed place with buildings, roads, factories.
   2. Employment Rural: Agriculture and animal husbandry are the main occupations.
   City: employment, trade, industry, government services.
3. Facilities: Rural: Limited health, education, transport facilities.
   City: Higher education, health and better bus/rail services.

63. 1. Congestion due to population growth
    2. Traffic problem and pollution
    3. Lack of sewage management and drinking water problem

64. 1. Forest plant collection (collection of fruits, valuable vanaspati)
    2. Hunting
    3. Manufacture of industrial materials (bastion, iron work, handicrafts)

65.1. Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA):
   – Scheme to provide employment to the unemployed in rural areas.
   2. Pradhan Mantri Gramin Sadak Yojana:
   – Project to connect villages through better roads.
   3. Swachh Bharat Abhiyan:
   - Scheme to promote cleanliness in villages and also to promote construction of toilets.

VIII. Answers to four marks questions

66. 1. Farmers grow crops on their land and produce food.
    2. Scientific researchers develop good seeds and agricultural technologies.
    3. Food processing workers form crops into food products
    4. The government provides support through agricultural subsidy, adequate irrigation and credit facilities.
    5. The common people cooperate in the chain of production, marketing and transportation.

67. **Characteristics of the Community:**
   1. Geographical unity: A community is formed by people living in a particular place.
   2. Social cooperation: There will be mutual assistance, cooperation and bonding among the members.
   3. Cultural similarity: There is similarity in tradition, language, religion, etc.
   4. Interdependence: All members are dependent on each other in a certain way.

   Types of community:

1. Rural Community
2. Urban Community
3. Tribal Community
4. Ethnic community

67. **Lifestyle:**
People from tribal communities live in forest areas. They follow their own language, beliefs, rituals and dress. They lead a simple and natural life.
Occupation: 1. Hunting 2. Forest wealth accumulation (valuable fruit), medicinal plants)
3. Handiwork (work for the basi), Handicraft)
Problems: 1. Lack of education 2. Health service not available 3. Government facilities are less

67. Differences:
1. Place of Residence:
Rural community: In the midst of nature, living in a rural area.
Urban community: Living in a developed place with buildings, roads, factories.
2. Occupation:
Rural: Agriculture and animal husbandry are the main occupations.
City: employment, trade, industry, government services.
3. Facilities:
Rural: Limited health, education, transport facilities.
City: Higher education, health and better bus/rail services.

68. The three problems faced by the urban community are:
1. Congestion due to population growth
2. Traffic problem and pollution
3. Lack of sewage management and drinking water problem
4. Displacement from habitat (in the name of forest conservation)

69. Problems in rural areas and remedial measures of the government:
Problems:
1. Lack of irrigation facilities
2. Lack of educational and health institutions
3. Lack of roads and transport
4. Unemployment

Remedial measures:
1. MGNREGA – To eradicate rural unemployment
2. Pradhan Mantri Gramin Sadak Yojana – Road Development
3. Ayushman Bharat – To Provide Health Care
4. Aatmanirbhar Krishi Yojana – Assistance to Agriculture

70. Discuss urban issues and the steps taken by the government:
Problems:
1. Population congestion and lack of houses
2. Traffic and air pollution
3. Sewage management problem
4. Lack of drinking water

Government measures:
1. AMRUT Yojana – Improvement of Infrastructure
2. Smart City Project – A Technologically Advanced City
3. Swachh Bharat Abhiyan – Promotion of Cleanliness
4. Metro and Bus Service Expansion – Transport Improvement

71. Value and interdependence of employment in the community Every person in the community is engaged in a different type of employment. Farmers produce food, doctors provide health care, teachers provide education. All such jobs are essential for the sustainability of the community.

Everyone should do their work with respect, regardless of whether any work is small or big. Employment increases the confidence of a person and instills intimacy in the society.

Through interdependence, we are all living directly or indirectly with each other's help. If the farmer is growing the crop, the trader sells it; Doctors take care of health. With such institutional cooperation, the community can be built greatly.

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Lesson 4. Community – Sports

I. Choose the correct option and answer

1. Boosts physical and mental health
2. Under extraordinary circumstances
3. Requires more preparation, speed, dexterity and training
4. Adventure games
5. Bachendri Pal

II.Spacing

6. Parks
7. Co-operation
8. Training, Equipment
9. Mount Everest
10. Tensing
11. Walking
12. Friendship, Cooperation
13. Kabaddi
14. Physical
15. Bachendri Pal
16. Courage, hard work
17. Training, Guidance
18. Sunday
19. Body and Mind
20. Defeat
21. Parks
22. Co-operation
23. Training, Equipment
24. Mount Everest
25. Tenzing
26. Walking
27. Friendship, Cooperation
28. Kabaddi
29. Physical
30. Bachendri Pal
31. Courage, Hard Work
32. Training, Guidance
33. Sunday

34. Body and Mind

35. Defeat

III. Right or False

72. **Okay**

73. **Error**

74. **Error**

75. **Error**

76. **Okay**

77. **Okay**

78. **Error**

79. **Error**

80. **Okay**

81. **Error**

IV .46 .Set up

Column A	**Column B**
1. Edmund Hillary	A. The first to climb Everest
2. Games	G. Entertainment and Pleasure
3. Adventure games	d. Training and skill required
4. Yoga	C. Physical exercise
5. International games	D. Develop friendships
6. Mysore Dasara	F. Wrestling
7. Benefits of games	C. Physical exercise
8. Bachendri Pal	First Indian woman to climb H. Everest
9. Sunday	I. Holiday
10. Community	J . Builds relationships

V. Answers to one-mark questions

47. What do games build between people? → **friendship**
48. Hedy is an example of physical exercise mentioned in the lesson. →Yoga
49. Which games require special equipment and training? → **adventure games**
50. Who was the first Indian woman to climb Everest? → **Bachendri Pal**
51. Which day is the holiday for most schools? → **Sunday**
52. What is the benefit of playing? →Good health
53. An international game you know. →Cricket
54. Which is the highest peak in the world? → **Mount Everest**
55. Who was the first to climb Mount Everest? → **Edmund Hillary and Tenzing Norgay**
56. A traditional game associated with the Mysore Dasara festival. →Wrestling

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VI. Answers to two marks questions

57. State the two uses of games.→They promote health and friendship.
58. Why is it important to play? → helps in health and happiness.
59. What precautions should be taken before adventure games? → proper training and use of safety equipment.
60. How do national and international games help countries? → foster friendship and bonds between countries.
61. What problems arise if there is no physical activity? → weakness and illness.
62. Name the two adventure games mentioned in the lesson. →Rockclimbing and boating in the river.
63. Mention the two benefits of yoga or cycling. →Improving the body and peace of mind.
64. Why is it important for adults and children to play together? To develop → cooperation and mutual respect.

VII. Answers to three marks questions

65. How do games help build relationships in the community? → teach partnership, friendship and mutual cooperation.
66. What are adventure games? And why are they dangerous? Games that take place in → mountains, forests or rivers; Risk without training.
67. The four benefits of games and exercises are: health, happiness, confidence, and teamspirit.
68. Explain the need for training and special equipment for adventure games. →They are very important for safety.
69. How do games help in physical and mental health? → body expands and the mind becomes brighter.

70. State the importance of local adventure games and the reason why they are forgotten today.→Part of culture; Forgotten by mobile games.

71. What is the significance of wrestling in Mysuru Dasara?→A traditional sport that attracts people.

72. How do I spend a holiday profitably? → Playing, reading, helping family.

VIII. Answers to four marks questions

73. What is the role of games in enhancing harmony and cooperation in the community?→They teach friendship, cooperation and teamwork to achieve goals.

74. What are the features of adventure games and precautions to be followed before playing?→Courage, adventure, tools, training are necessary.

75. Influence of national and international games→friendship, introduction of culture, peace between countries.

76. Write an essay on the importance of physical exercise and games for maintaining health and confidence→Health for body and mind, happiness, courage.

77. Collect information about an adventure game: state the difficulties, preparation, and usefulness→e.g., boating in the river–training, awareness, enthusiasm.

78. How do games develop a positive attitude to success and failure? → courage to accept defeat and win.

79. How does today's technology impact local adventure games? Local games have been forgotten by → mobile and TV games.

Lesson-5. Natural Resources

I. Choose the correct option and answer

1. Nitrogen

2. 21%

3. Air occupies space

4. Soil

5. Ramanagara

II.Spacing

6. Naturally

7. Natural Resources

8. Renewable

9. Non-renewable

10. The sun

11. About 500 to 1500 years

12. Lithosphere

13. Monoculture

14. oxygen

15. Petroleum

16. Renewable

17. ore

18. Animals

19. Deficiency

20. Banyan tree

III. Right or False
21. Error
22. Okay
23. Error
24. Error
25. Error
26. Okay
27. Error
28. Okay
29. Okay
30. Error
31. Okay
32. Error
33. Okay
34. Okay
35. Okay

IV .36.Match Write Answers
1. - K. Solar Energy
2. - c. Coal
3. - G. Petrol.
4. - G. Results of observations of rocks
5. - Ch. Fruits and wood
6. - ch. Temperature and light
7. - J. Peripheral agriculture
8. - J. Bannerghatta
9. - Gas fuel fuel
10. - T. Planting banyan trees

V. Answers to one-mark questions
37. The things that we get from nature are called natural resources.
38. Sunlight, wind
39. Coal, Petrol

40. Soil is made up of pottery, soil, destroyed parts of plants and animals.
41. Lithosphere
42. Sunlight
43. coal
44. oxygen
45. Petroleum or moist natural gas is processed and obtained.
46. Saalumarada Thimmakka

VI. Answers to two marks questions

47. Renewable resources can be used again. Non-renewable ones will not be used again.
48. The soil forms slowly. So it is renewable.
49. Forests provide trees and fresh air.
50. The process of cultivation following the shape of the land is called peripheral farming.
51. Dead plants and animals turn into fuel after millions of years.
52. To preserve for the future and for other organisms.
53. Diesel, kerosene, LPG
54. Minerals are natural substances present in the earth. They are removed separately.
55. a) Plant more trees b) Don't cut trees
56. To protect forests

VII. Answers to three marks questions

57. Overuse of fuels pollutes the air and is harmful to animals and people.
58. Forests provide fresh air, shelter animals and preserve the soil.
59. Planting trees, doing perimeter farming, saving trees from being cut down.
60. Plants prepare food from sunlight (light synthesis).
61. He planted and nurtured several banyan trees.
62. Coal is made up of dead plants and is used for power generation and cooking.
63. Renewables: sunlight, air, water. Non-renewable: coal, petrol, natural gas.
64. Forests are protected through national parks and anti-deforestation acts.
65. These are caused by dead organisms and take a long time. Cannot be used again.
66. Because they can increase the number by reproducing.

VIII. Answers to four marks questions

67. There are renewable (sun, wind) and non-renewable (coal, petrol) assets which must be saved for the future.
68. Soil helps in plant growth. Used to grow food. It holds water and gives shelter to insects.
69. Forests prevent the soil from being washed away and provide habitat to birds and animals.
70. Petroleum is formed from dead marine animals. It is useful for both petrol and diesel fuels.
71. The government plants trees, enacts laws and protects animals. People plant trees and save the forest.
72. If we cut down more trees, the animals will be homeless and the soil will be washed away. We have to plant and protect trees.
73. Solid fuel – coal, wood. Liquid fuel – petrol, diesel. Gas fuel – LPG, natural gas.
74. These movements asked people not to cut trees. Saved several forests.
75. If we use natural resources more, they will be exhausted. Therefore, it should be used carefully.
76. Saalumarada Thimmakka has planted hundreds of banyan trees and saved the environment.

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Lesson – 6. Air

I. Choose the correct option and answer

1. d) Water vapour

2. b) 0.04%

3. c) Air occupies space

4. d) Air pollution

5. d) All of the above (including heart disease, cancer)

II.Spacing

6. The layer of climate that surrounds the earth **is called** atmosphere.
7. Air is very essential for the life of animals and plants **.**
8. The main gases present in air are **nitrogen** and **oxygen**.
9. **Nitrogen is present in** 78% of the air.
10. The normal amount of carbon dioxide in the air is **0.03%**.
11. Air has weight and it **occupies space.**
12. We use the oxygen in the air **for breathing.**
13. The wind is not visible but we **can feel it**.
14. Air is caused by **smoking**, **dust elements**, and **chemicals**.
15. We can use electric vehicles to prevent air pollution.

III. Right or False

16. Error
17. Okay
18. Error
19. Okay
20. Error
21. Okay
22. Okay
23. Error
24. Okay
25. Okay

IV .26.Match Write Answers

A	B
1. Important element of air	b. Nitrogen
2. 78% of air	b. Nitrogen
3. Particles in the air	C. Dust and water vapour
4. Air has weight	D. Glass filled with air

IV .26.Match Write Answers

A	B
5. 30. Air pollution	d. Chemicals and smoke
6. Air Uses	F. Respiration and fuel burning
7. Measures to prevent pollution	g. High smoke legs, public transport
8. 33. Moving air	H. Air (Wind)

V. Answers to one-mark questions

27. Air is made up of nitrogen, oxygen, carbon dioxide and water vapour.
28. Air is another name for air.
29. The main gases of air are nitrogen, oxygen.
30. Animals need air for respiration.
31. The wind cannot see, but we can feel it when it moves.
32. Yes, air has weight.
33. Air pollution is the pollution of air.
34. Smoke, dust, gases coming out of factories.
35. Planting trees, using less fuel, maintaining cleanliness.
36. The moving air is called wind.

VI. Answers to two marks questions

37. Nitrogen, oxygen, carbon dioxide, water vapour.
38. When the balloon is filled with air it weighs – it shows that it is weighed.
39. Causes respiratory distress, asthma, environmental damage.
40. Respiration, fuel burning, cloth drying.
41. Using public transport, planting trees, not burning garbage.
42. Fire needs oxygen – it's in the air.
43. Smoke from vehicles, gases from factories, burning of garbage.
44. When the balloon is filled with air it becomes wider – which shows that the air plays space.
45. Nitrogen 78%, oxygen 21%, other gases.
46. Air has weight and occupies space.

VII. Answers to three marks questions

47. Animals use air oxygen for respiration. Plants use carbon dioxide for food preparation.
48. Nitrogen (78%), oxygen (21%), and other gases are present in small amounts in the air.
49. Air pollution can cause shortness of breath, asthma, phlegm.
50. Weigh two balloons – if one is filled with air it will weigh it.
51. Usage: Breathing, fire, game balloon. To prevent: planting trees, using public transport, avoiding smoke.
52. Breathing, burning fire, balloon flying.
53. Tell people the importance of air, avoid smoke, plant a sapling.
54. The air that has risen to the sun's energy goes up, the cool air fills its space – it moves the air.
55. Air is very essential for our life – breathing, fire, helping the crop grow.
56. Fire needs oxygen – fire cannot burn without air.

VIII. Answers to four marks questions

57. Structure of air: Nitrogen, oxygen, other gases. Importance: Respiration, fire, crop growth. Experiment: Fill the balloon with air and see the weight.
58. Causes: Vehicle, factory. Effect: Health problem. Preventive measures: tree planting, low use of fuel.
59. Take out two balloons, fill one with air and see the weight – the air has weight. This is also important in nature.
60. Air is necessary for respiration, for fire, for crops. Otherwise life of living beings is impossible.
61. Air pollution causes asthma, shortness of breath, destruction of plant life.
62. Public transport, tree plantation, creating awareness in schools.
63. Nitrogen and oxygen are pleasant. Excess carbon dioxide is harmful.
64. The government will bring in rules. People should plant trees, avoid smoke.
65. The energy of the sun moves the air. The movement of air helps in many things like weather, crop, etc.
66. Air provides breath, fire, help to crops. We have to protect it.

******

Lesson - 7 Water

I. Choose the correct option and answer

1. c) Oceans
2. c) Rivers
3. c) Spring
4. d) Colour, smell and taste
5. d) Malaria

II.Spacing Replies

6. About 71% of the earth's surface is covered by water.
7. The main source of water is rain.
8. The water that comes out of the pressure from inside the earth is called a "stream".
9. The water obtained when the earth is dug is called "well water".
10. A dam built to store water on rivers is called a "reservoir".
11. Water is required for the growth of plants.
12. Pure water is colourless, odorless and tasteless.
13. Water pollution can cause cholera, diarrhoea and typhoid diseases.
14. The rivers eventually join the ocean.
15. Rainwater enters the earth through loose soil and accumulates as underground water.
16. Boats and ships are used for water transport.
17. Malaria is caused by the insects that bread in stagnant water.
18. The underground water is replenished through rain.
19. Water has weight.
20. About 70% of the body of plants and animals is water.

III. Right or False

21. Oceans are the smallest source of water on earth. (Error)
22. The streams come out of the pressure from the underground water. (OK)
23. Water does not flow from top to bottom. (Error)
24. When water is boiled it evaporates. (OK)
25. Reservoirs store water throughout the year. (OK)
26. Drinking contaminated water is not harmful to health. (Error)
27. Pure water has no colour, smell or taste. (OK)
28. Rivers do not flow randomly and reach the ocean. (Error)
29. Excessive use of underground water is not affecting its availability. (Error)
30. Malaria is transmitted by female Anopheles mites. (OK)
31. The salt water of the ocean is safe to drink. (Error)
32. Rainwater harvesting is helpful in water conservation. (OK)

IV .33.Match Write Answers

A	B
1. Zari	c. Water coming out of the earth
2. Well	a. Water collected through digging
3. Reservoir	b. Large storage of water collected from the dam
4. Lake	d. Man-made low level of water storage

A	B
5. Ocean	e. Earth's largest source of water
6. Rainwater harvesting	f. Method of water conservation
7. Malaria	g. A disease spread by insects
8. River	h. Water flowing towards the ocean

V. Answers to one-mark questions

34. About 71%
35. rain
36. Water that comes out of pressure from the earth
37. To drink, to cook
38. Well water
39. Cholera
40. How to store rainwater
41. Ocean
42. Collecting water
43. Anopheles female mosquito

VI. Answers to two marks questions

44. Rain, River
45. Large water storage built by the dam
46. Water is essential for all living beings
47. To avoid water scarcity in future
48. Makes water unsafe to drink
49. Through rainwater harvesting
50. No color, no smell
51. By biting another person after biting a malaria-infected person
52. Boats, ships
53. By collecting rainwater

VII. Answers to three marks questions

54. Rain water particles flow into rivers and enter the ocean. The water of the ocean evaporates due to the heat of the sun and forms a cloud. This water cycle is continuous due to rain from clouds.

55. Wells are formed by digging underground water. Lakes are constructed by blocking the flow of a river or rainwater and storing it.

56. Drinking contaminated water can lead to diseases like hoarseness, aggravation, shortness of breath, patus, typhoid, malaria, etc.

57. Plants need water for growth. Animals need water for drinking, controlling body temperature and digesting food.

58. Measures such as rainwater harvesting, construction of soak pits, growing more green crop, preventing soil collapse, etc. can be followed to conserve underground water.

59. Lakes are places where water is stored either naturally or temporarily. Reservoirs construct large bunds to store river water and use it for water management.

60. Water is considered sacred in our culture. Water is important in pilgrimages, bathing of rivers, prasadam of holy water in temples, use of Gangajal in festivals, etc.

61. Rainwater harvesting increases the water level within the earth, solves water scarcity, increases the availability of drinking water, facilitates water supply to crops.

62. Ink pits are sensitive pits that drop rainwater into the ground. Without their need, rainwater is wasted. It is possible to increase the amount of water inside the earth through a borewell.

63. Water is colourless, tasteless, odorless and liquid in nature. It burns at 100 degrees, snow at 0 degrees, flies and has the property of evaporation.

VIII. Answers to four marks questions

64. Rivers, lakes, wells, lakes, reservoirs and underground water are the main sources of water of the earth. They are useful for drinking, agriculture, animal use, electricity generation and employment.

65. Water pollution is caused by industrial waste, household sewage, chemical use, dissolution of plastic and oil, resulting in scarcity of beverage water, loss of biomass, health problems and loss of ecological balance.

66. Water conservation is necessary to save non-renewable wealth of water for the future. Measures such as economy, rainwater harvesting, tree planting, prevention of pollution, use of recycled water etc. should be followed.

67. Water is used for drinking, cooking, bathing, washing, agriculture, industry, power generation. Economy helps in preventing wastage of water and saving water for the future.

68. Lakes are natural or artificial and help in storing water in an area. Reservoirs store river water on a large scale through embankments or dams and use it for agriculture and power generation.

69. Excessive use of underground water reduces the water level and increases the scarcity of drinking water, landslides, roughness of the ground. Restoration requires rainwater harvesting, borewells and economical use of water.

70. Malaria disease is transmitted by mosquitoes. The mosquito virus is transmitted through the blood of an infected person. To prevent: It is important to cover various water tanks, use mosquito repellent, maintain cleanliness.

71. Plants need water for life, food creation and growth. Animals need water for water balance in the body, digestion of food, control of temperature, maintenance of life.

72. Traditional methods: plates, wells, tanks, jarebhavi, talaga, pits. Innovative methods: rain water harvesting, soaking pit, water recycling, control system of piped water distribution.

73. In my surroundings, tirtha in temples, bathing in river, use of Gangajal in festivals, importance of river-lakes in pilgrimages, etc. play a role in the culture and religious practices of water.

******

Lesson – 8. Agriculture

I. Choose the correct option and answer

1. Annadata
2. Agricultural labourers
3. Agricultural land based on rain
4. Vermi Compost
5. intensive agriculture

II.Spacing Replies

6. Important
7. Base
8. Agriculture
9. Hobby
10. Rabi
11. Kharif
12. Machines, chemicals
13. Farmers
14. Grain
15. Rabi
16. Manufacturing
17. Economic

III. Right or False

18. Agriculture is the main occupation of human beings. –**Correct**
19. Wheat kharif crop. –**Wrong**
20. Workers help in agriculture. –**Ok**
21. Corn is a winter crop. –**Wrong**
22. The vegetable crop provides healthy food. –**Okay**
23. Pea rabi crop. –Ok
24. Agriculture does not require soil and water. –**Wrong**
25. Tomato vegetable crop. –**Ok**
26. The crops grown during the rainy season are called rabi crops. –**Wrong**
27. Agriculture provides food but is not useful. –**Wrong**

IV .28.Match Write Answers

A (agricultural terms)	**B (meaning)**
1. Paddy	Kharif Crop
2. Wheat	Rabi Crop
3. Sesame	Oil seed
4. Tomato:	Vegetable Crop

A (agricultural terms)	B (meaning)
5. Labourers	Labour Providers
6. Soil	Required to make crop manure
7. Pulses	Protein source
8. Sickle	Agricultural Implements

V. Answers to one-mark questions

29. Agriculture is the primary occupation.
30. It has grown during the rainy season.
31. Wheat is grown in winter.
32. Dal (plough) is an instrument used in agriculture.
33. Corn kharif crop.
34. Peas are rabi crops.
35. It takes soil and water to grow.
36. Tea is grown in hilly areas.
37. Enu (seed of ghee).
38. Tomato vegetable.

VI. Answers to two marks questions

39. The kharif crop grows during the rainy season.
    The rabi crop grows in winter.
40. Soil, water, seeds and equipment.
41. The crops that get oil are called oilseeds.
    Example: chickpeas, ridges.
42. Vegetables are healthy and give us vitamins and minerals.
43. Dal (plough) and kotti (sickle).
44. Water scarcity, pests, and bad weather.

VII. Answers to three marks questions

45. → are – rice is made.
    → used to make jowar and roti.
    → Mango (Maize) – Food and livestock food.
46. → wheat – to make chapatis and bread.
    → Peas – used as vegetables.
    → Somasu (Mustard) – to get oil.

47. → Dal – Used to wash the soil.
→ to harvest the crops.
→ tip (Ho) – to remove leaf damages.

48. → soil becomes the growing ground and provides nutrients to the plant.
→ water helps in the growth and health of the plant.

VIII. Answers to four marks questions

49. The main requirements for → agriculture are:

- Soil – As the plant grows.
- Water – for plants to drink.
- Sunlight – to prepare food.
- Seeds – for growing.
- Labourers – to work in the field.
- Tools – help to do farming.

50. → Cereals: Nala, Wheat, Jowar
→ Oil seeds: Gram, Ridge, Somasu
→ Vegetables: Tomato, Brinjal, Carrot
→ Fruits: Mango, Banana, Orange

51. → farmers face several problems:

- Lack of rain or water
- Crop Diseases
- Expensive seeds and tools
- Low price of crop sales

52. → farming gives us grains, vegetables and fruits.
→ this food is eaten by humans and animals.
→ farmers grow food, so they are the beginning of the food chain.

****

Lesson-9. Food – Essence of Life

I. Choose the correct option and answer

1. Food
2. Carbohydrates
3. These are dry-legged friends
4. Food that is not required for health or is low in nutrients
5. All of the above

II.Spacing Replies

6. Required
7. Energy
8. Nutritious food
9. Energy
10. Protein
11. Vitamins
12. Water
13. Metal
14. Water
15. Health
16. Afternoon
17. Nutrition
18. Chemicals
19. In shops
20. Price
21. Raisins
22. Salt
23. Fridge
24. Chemicals
25. Mental

III. Right or False

26. Food helps us in growth and health. –Okay
27. Millets are not healthy and should be discarded. – Error
28. Sauce contains chemicals to make food tasty. –Okay
29. Junk food boosts our body's immunity. – Error
30. Achara is preserved using sugar. – Error
31. Fast food is a food that is always nutritious. – Error
32. Doctors advise eating millets for better health. –Okay
33. Carbohydrates help in body building. – Error
34. Cold protection is used to preserve fish and meat. –Okay
35. We get protein from fruits. – Error
36. Food habits are similar in all parts of Karnataka. – Untrue
37. Readymade food is always fresh and healthy. – Error
38. Abandoning good food is called food waste. –Okay
39. Spices and junk food lead to fat gain. –Okay
40. A healthy diet gives you the strength to fight diseases. –Okay

---

IV.41.Match Write Answers

Set 1: Nutrients and Sources

- Carbohydrates →ragi, jowar, bread

- Proteins →fish, egg, mugguni
- Lipids (oil) →dry coconut, egg yolk
- Vitamins →fruits, lemon juice, vegetables
- Minerals →okra, cabbage, grapes

Set 2: Food items of plant origin

- →Grated coconut, green leafy vegetables
- Oil seeds →sunflower, muguni
- Cereals →coriander, jowar
- Vegetables →okra, beetroot
- Fruits →Mango, Orange)

Set 3: Conservation methods

- Achara →Salt
- Fruits →sugar
- Fish and meat →cold storage
- Grape →drying
- Milk →fridge

V. Answers to one-mark questions

42. Energy comes from food.
43. Vitamin A is present in carrots.
44. Grains come from the seed part of the plant.
45. One oilseed is groundnut.
46. Junk food is not healthy.
47. An example of cold protection is the fridge.
48. Protein is present in milk.
49. For a millet e.g. ragi.
50. Food wastage means giving up good food.
51. To dry the grapes and make dry grapes.

VI. Answers to two marks questions

52. The two sources of protein are fish and egg.
53. There are two uses of millets: cereals with more nutrients and can be grown in less water.
54. Junk food is not healthy as it has to be avoided and is low in nutrition.
55. There are two methods of food preservation: drying and cooling preservation.
56. Two food items of animal origin: milk and meat.
57. The reasons for changing food habits are: different cultures and food availability.
58. The last date indicates the day when the food is spoiled.
59. The two benefits of mid-day meal: keeping children healthy and helping in better physical and mental development.
60. The two common foods in my village are: rice and vegetables.
61. Eating outside food can cause stomach pain and worsen health.

VII. Answers to three marks questions

62. The three benefits of millets are:

- Millets are highly nutritious cereals.
- They can grow in a short span of time, using less water.

- Millets are called drought victims.

63. There are three reasons for food wastage:
    - Buying more food.
    - Not eating the rest of the food.
    - Food gets spoiled if not preserved properly.
64. The three methods of food preservation are:
    - Drying: Removing water from food and keeping it safe.
    - Coolant protection: Keeping food cool and not spoiling.
    - Adding salt: Saving food using salt.
65. Classification of plant and animal sources:
    - Plant Source: Mango, Ragi, Cauliflower
    - Animal Source: Egg, Fish, Milk
66. The three harmful effects of junk food are:
    - Increasing body weight/obesity.
    - Weakened immunity.
    - Stomach problems will occur.
67. The government's three efforts for food availability are:
    - Providing mid-day meals in schools.
    - Providing tools and seeds to farmers.
    - Conducting food collection and distribution programmes.

VIII. Answers to four marks questions

68. Climate and land affect the availability of food because some crops require a specific climate and soil. For example, growing rice requires more water. So it grows in areas where rainfall is high. It is better to grow wheat in cooler areas.
69. How changes in eating habits/habits affect health: Eating too much junk food can lead to weight gain, loss of strength and illness. Eating healthy food keeps the body strong and gives energy.
70. What should we do to avoid food wastage: We should buy only as much as we want, eat all the food and preserve the food properly. For example the remaining rice should be saved for the next meal.
71. How media and technology influence food habits: Junk food advertisements motivate us to eat junk food rather than healthy food.
72. Classification title:
    - Millets: Millets
    - Pulses: Tur,
    - Vegetables: Brinjal
    - Fruits: Oranges
    - Oil seeds: Sunflower seeds

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Lesson-10. Residences

I. Choose the correct option and answer

1. Caves and wooden rods
2. A place where many families live together by constructing houses in villages or cities
3. Construction of multi-storey house for one family
4. Lack of proper drainage system
5. There should not be a system of rainwater harvesting

II.Spacing Replies

6. Caves and wooden rods
7. School, Guru
8. Community Homes
9. Community Housing Scheme
10. Lack of basic amenities
11. Villages and Cities
12. Air and Light
13. Rain water
14. Near the main road
15. Health and happiness
16. Providing houses to the poor
17. Their own home
18. In community homes
19. Electricity
20. Solar Energy

III. Right or False

21. Error
22. Error
23. Error
24. Okay
25. Error
26. Error
27. Okay
28. Okay
29. Okay
30. Okay
31. Error
32. Error
33. Okay
34. Error
35. Error

IV .36.Match Write Answers

Set 1.

1. Early humans – lived in caves
2. Community Home – Multi-family residence
3. Street lights – night light
4. Community Hall – Useful for meetings
5. Solar Energy – Useful for power generation

Set 2.

1. Poor hygiene – health issues

2. Vegetable shop – necessities of life
3. Sewerage System – Waste Water Management
4. Gym – Physical exercise
5. Park – Resting Place

Set 3.
1. Good Home – Health, Peace
2. Fire accident – Danger in multi-storey edifices
3. Air circulation – useful for respiration
4. Government – Responsible for construction of houses
5. Garbage Manure – Bio-Manure

Set 4.
1. Urban problem – Garbage disposal problem
2. Rural problem – lack of toilets
3. Cement terrace house – strong shelter
4. Hut – made of soil and leaf
5. Community Homes – Basic amenities available

Set 5
1. Health Centre – Treatment Centre
2. Playground – Place of play
3. Electricity – Light for the house
4. Shop – Daily Needs
5. Theatre – Entertainment Centre

V. Answers to one-mark questions

37. Child's First School – Home
38. Material used in early shelters – tree horns
39. Abode is – the place where a man resides
40. Individual houses – Individuals build as per their need
41. The common feature of the habitation – there are doors and windows
42. Purpose of street lights – to provide night light
43. Facilities in Community Homes – Community Hall
44. One problem of rural households – lack of drainage system
45. What we get from solar energy – electricity
46. Requirements for a good home – cleanliness, lighting, air circulation, water system

VI. Answers to two marks questions

47. Arrangement of residence, distribution of amenities
48. Leaves, soil
49. Garbage problem, population growth
50. Light and air circulation
51. The surroundings are clean
52. For protection from harsh weather
53. Toilets, water supply
54. How to store water when it rains

VII. Answers to three marks questions

55. Individual homes are owned by an individual, community homes are shared by many.
There will be more privacy in individual homes, less privacy in community homes.

All facilities in individual homes are own, used by allottees in community homes.
56. Lack of toilets
Lack of clean water
Lack of drainage system
57. A healthy environment is available
The spread of the disease decreases
Electricity consumption decreases
58. Water Supply
Toilet facility
Garbage Disposal System
59. Provides Safety
All the members of the family can live together
Provides an atmosphere of relaxation and happiness

VIII. Answers to four marks questions

60. Provides accommodation to more people
Water supply and toilet facility will be available
The garbage disposal system will be better
Land cover can be used properly in urban areas
61. Densely populated population
Lack of garbage management
Lack of clean drinking water
Noise pollution caused by vehicular traffic
62. Air and light should be well penetrating
There should be a supply of clean water
There should be a drainage system
There should be a safe and peaceful atmosphere
63. Toilet facility
Availability of clean drinking water.
Good road and drainage system
Availability of health centres and schools
64. Community houses are built hard so that multiple people can live
Provides accommodation to more people in less land area
There is no need for mandatory residential construction as it caters to the living needs of the people
Urban expansion comes under control through planned housing

*****

Lesson – 11. Nature of Matter

I. Choose the correct option and answer

1. Matter
2. Gas (Gas)
3. Changes to liquid state
4. Mass
5. The density of water is high.

II.Spacing Replies

6. Matter
7. Location
8. Weight
9. Fixed
10. Shape
11. Location
12. Gas
13. Liquid
14. Solid
15. Invisible
16. Visual
17. Solid, liquid, gas
18. Weight
19. Weight
20. Specific shape or definite shape

III. Right or False

21. Error
22. OK
23. Error
24. Error
25. OK
26. OK
27. Error
28. Error
29. OK
30. Error

IV .31.Match Write Answers

1. Solid → has a fixed shape
2. Liquid → shapes vessel
3. The gas → matches the shape and location of the entire vessel
4. Air → occupies the space of the entire vessel
5. Water → takes the shape of a vessel
6. The tree occupies the entire space →

V. Answers to one-mark questions

32. Matter means all things that occupy space and weigh weight.
33. The three states of matter are: solid, liquid, gas.
34. Example of a solid: Pen.
35. Example of liquid: Water.
36. Example of air: Air.
37. Yes, matter has weight.
38. No, gases cannot be found normally.
39. A solid has a fixed shape.
40. Liquid state matter takes the shape of its vessel.
41. Matter in the gaseous state occupies the entire space.

VI. Answers to two marks questions

42. There is a fixed shape, there is a fixed size.
43. The shape changes, the size remains constant.
44. No fixed shape, occupies the entire available space.
45. If the cube is of a fixed shape, the liquid takes the shape of a vessel.
46. Since the molecules of gas have a tendency to disperse throughout the space.
47. The molecules of a liquid are sliding from each other and are not stable at a particular place.
48. Cheque, pen, table.
49. Water, milk, oil.
50. Visible matter: paper, grapes
    Unseen matter: air, oxygen
51. Takes the shape of glass.

VII. Answers to three marks questions

52. Cube: Stone – has a fixed shape and size.
    Liquid: Water – fits the shape of a vessel, the size is constant.
    Gas: Air – no fixed shape, fills the available space.
53. This is due to events such as the wind spreading flower ingress, flying kites, etc
    It is known as matter.
54. Solid: There is a constant shape and volume.
    Liquid: There is a constant quantity and the shape changes.
    Air: No fixed shape, no quantity
55. Liquids are of constant quantity and have the shape of a vessel. They circulate and move to another vessel.
56. If a stone is placed in the field, it takes up space (space encroachment) and has weight. Similarly, water takes up space in the bottle and has weight.
57. In solids the molecules are intensely ready, so the shape remains. But in liquids and gases the molecules are loose, then the shape is not specific.
58. Cube: pen, book, laptop
    Liquid: Water, oil, milk
    Gas: Air, food gas, oxygen
59. Solids have a definite shape and are stable, whereas gases take the shape of a vessel and diffuse in any shape.
60. Matter changes its state according to heat. E.g. when water is boiled, it becomes evaporation (gas). If the water of the river cools down, it becomes snow (solid).
61. Visible matter: Objects that we can see and touch. E.g. paper, water.
    Invisible matter: Things that we cannot see. E.g. air, natural gas.

VIII. Answers to four marks questions

62. Solid – fixed shape and size (e.g. stone)
Liquid – the size is constant, but the shape changes (e.g. water)
Gas – Neither definite shape nor size; fills available space (e.g. air)
63. Put the water in a glass glass and a tasle. The shape of water changes in two bowls. This shows that the liquid matches the shape of its vessel.
64. Air is also a substance that spreads the smell of flowers, flies kites, blows strong winds and drives away objects, so that we know its existence.
65. Matter is very important in our daily life.
Cube: Table, Book
Liquid: Water, milk

Gas: Air, Cooking Gas
66. Matter is in three states – solid, liquid, gas.
Cube: fixed shape and size
Liquid: Fixed size but change shape
Gas: Neither definite shape nor volume, compressible
67. Cube: fixed shape and size
Liquid: The size is constant but the shape changes
Gas: Neither shape nor volume is fixed; it fills container
68. A bag of jackfruit leaves or plastic balls can be taken and weighed. There is a difference in the weight of airless bags and filled bags. This shows that air has weight and occupies space.
69. Visible matter: Objects that we can see and touch (e.g. paper, water)
Unseen matter: Matter that we cannot see (e.g. air, oxygen)
70. Physical properties: Colour, shape, smell, temperature etc. of matter.
Chemical properties: The process by which matter reacts with another substance to create something new.
71. The properties of matter are useful in our daily life.
We use the flow of water, the movement of air, the size of the cube.
E.g. temporary size bottles, water flow, kite flying

******

Lesson - 12 Elements, Compounds and Mixtures

I. Choose the correct option and answer

1. a) Element
2. c) Compound
3. c) Water
4. b) Retains their original characteristics
5. c) Soil

II.Spacing Replies

6. Molecules
7. Molecule
8. of two or more elements
9. of two or more substances
10. H_2O
11. Mixing
12. Metals and non-metals
13. Sodium and chlorine
14. Different
15. Physical
16. Fixed
17. Number and Type
18. Gas
19. Carbon, hydrogen and oxygen
20. Mercury

III. Right or False

21. Error
22. Error
23. Ok
24. Ok
25. Error
26. Error
27. Ok
28. Error
29. Ok
30. Error
31. Ok
32. Ok
33. Error
34. Error
35. Error

IV .36.Match Write Answers

Object and Type

- iron — metal
- Water — compound
- soil — mixture
- Oxygen — non-metal
- Salt (NaCl) — compound

- Air — mixing

Status and Example

- solid — sugar
- liquid — water
- gas — oxygen

Arrange words according to descriptions

- Chemically dissociable — element
- Can be divided by simple methods — mixing
- Formed by the chemical composition of elements — compound
- Has a fixed ratio of atoms — compound
- Retains the original property — mixing

V. Answers to one-mark questions

37. Atomic
38. Copper
39. Salt
40. H_2O
41. Mixing
42. Gold
43. Uranium manufactured by technology
44. Mixing
45. Edhatu, Adhatu
46. Compound

VI. Answers to two marks questions

47. There are two differences between a compound and a mixture:
    1. The compounds are chemically arranged, the mixtures are physically mixtured.
    2. Compounds have a fixed ratio of elements, not in mixtures.

48. Examples:
    1. Factors: Steel, Oxygen
    2. Compounds: Water, Salt
    3. Mixtures: soil, air
49. An element is a pure substance made up of identical atoms. Example: Oxygen.
50. A compound is a compound in which two or more elements combine chemically in fixed proportions to form a new substance. Example: Water (hydrogen and oxygen).
51. A mixture is a mixture of two or more substances that are physically mixed, but not chemically attached. Example: Soil.
52. A molecular formula is a formula that shows the number and type of atoms within a molecule. Example: The molecular formula of water is H₹O (hydrogen 2, oxygen 1).
53. The two properties of the mixture are:
    1. The parts of the mixture retain the basic properties.

2. Mixtures can be broken down by physical methods

VII. Answers to three marks questions

54. There are three variations of compound and mixture:
    1. The properties of the compound are different from the elements, the parts of the mixture retain their basic properties.
    2. Compounds are chemically arranged, only mixtures are physical mixtures.

3. Compounds have a fixed ratio of elements, not in mixtures.

55. Examples:
    1. Elements: Gold, copper, natural gases
    2. Compounds: carbon dioxide, sugar, salt
    3. Mixtures: air, salad, soil
56. Elements can be solid, liquid or gas. Examples:
    1. Solid: Steel
    2. Liquid: Mercury
    3. Gas: Oxygen
57. Properties of compound:
    1. Chemically formed by a combination of elements.
    2. There is a fixed ratio of atoms.
    3. Has different properties than elements.
58. Characteristics of mixture:
    1. It is a physical mixture.
    2. The parts maintain basic qualities.
    3. Can be divided by simple methods.

VIII. Answers to four marks questions

59. Differences between elements, compounds and mixtures:
    1. **Elements**: A pure substance made up of similar atoms e.g. steel, oxygen.
    2. **Compounds**: Two or more elements combine chemically to form a new substance e.g. water, salt.
    3. **Mixtures**: Two or more substances are physically mixed. E.g. air, soil.
60. List of examples:

Status	Items	Compounds	Mixtures
Solid	Iron, Gold, Copper	Salt, sugar, chalk	Soil, Salad
Liquid	Mercury	Water, alcohol	Milk, juice
Gas	Oxygen, nitrogen	Carbon dioxide	air

61. The main differences between a compound and a mixture are:
    1. Compounds have a definite chemical formula, but mixtures don't.
    2. Compounds have new properties, mixtures retain basic properties.
    3. Compounds can be broken down chemically, mixtures physically.
       E.g. salt (compound), air (mixture).
62. How is salt absorbed by toxic substances?
    1. Toxic substances such as sodium and chlorine combine chemically to form a safe substance called salt.
63. How do mixtures maintain their basic properties?
    1. The parts of the mixture do not change chemically from each other but maintain their own properties. E.g., gases in the air retain their own properties.

Lesson – 13. Amazing Energy

I. Choose the correct option and answer

1. d) Stone
2. b) Potential energy
3. b) Food intake
4. c) Solar Energy
5. c) Power generation in electric cells

II.Spacing Replies

6. Energy
7. The sun
8. Solar
9. Fast Fuel
10. Electricity
11. Food
12. Renewable
13. Chicken
14. Electricity
15. Can save fuel
16. Solar
17. Hydropower
18. Solar drying machine
19. Can save electricity
20. biological

III. Right or False

21. Error
22. Okay
23. Error
24. Error
25. Okay
26. Error
27. Okay
28. Error
29. Error
30. Okay

IV .Match Write Answers

31. 1 → d. Power generation 2 → c. Wind energy 3 → a. Flowing water 4 → e. Coal and petrol
    5 → b. Sunlight 6 → f. Saves fuel 7 → g. Energy for the body

V. Answers to one-mark questions

32. **What is energy?**
    The energy required to do → work.
33. **Name a renewable energy source.**
    → sunlight.
34. **Give the example of a teenage energy source.**
    → coal

35. **What is the star that gives us energy?**
→ sun.
36. **State one use of solar energy.**
In the preparation of food for → plants
37. **What is used to dry food from sunlight?**
→ solar drying machine.
38. **Tell me a way to save energy.**
→ lights should be turned off.
39. **Where does the energy for our body come from?**
→ from the food we eat.
40. **Why is a windmill used?**
→ to generate electricity.
41. **What energy comes from plant and animal waste?**
→ Biogas.

VI. Answers to two marks questions

42. → Renewables: Sun, Air
→Coal, Petrol
43. → to serve food, heat water, generate electricity.
44. → 1. Turning off lights, fans when not needed
→ 2. Using solar equipment
45. → energy from plant and animal waste.
→ example: Biogas
46. → there may be a shortage of energy in the future.

VII. Answers to three marks questions

47. → renewable energy is available again and again (e.g. sun, wind)
→ energy is exhaustible (e.g. chicken, petrol)
48. → 1. To serve food
→ 2. To heat the water
→ 3. To make electricity
49. → 1. Cooking
→ 2. Watching TV
→ 3. Travel
50. → lights, fans can be turned off, sunlight can be used, others can be informed.

VIII. Answers to four marks questions

51. **Explain the four sources of energy and their uses.**
    a. **Sun:** Cooking, heating water
    b. **Wind:** Power generation
    c. **Water:** Hydropower
    d. **Poultry:** Used in factories, trains
52. **State the benefits of renewable energy sources.**
    a. Does not end
    b. Does not harm the earth
    c. Eco-friendly
    d. Help save other energy sources
53. **Mention four steps to save energy in daily life.**
    a. Turning off the lights

b. Using public transport
c. Using solar energy equipment
d. Fridge, TV closed properly

54. **Explain how important energy is in human life.**

a. Cooking, reading, playing, traveling all need energy
b. Machines need energy to work
c. If there is no energy in the body, it cannot work
d. Energy is the necessity of life.

******

Lesson – 14. The Sky

I. Choose the correct option and answer

1. The sun
2. 8 planets
3. 24 hours
4. Mars
5. moon

II.Spacing Replies

6. The sun
7. moon
8. Planets
9. Solar System
10. Stars
11. Sky
12. Planets
13. Around the sun
14. The Moon
15. Light

III. Right or False

16. OK
17. OK
18. OK
19. Error
20. OK
21. Error
22. Error
23. Error
24. Error

IV .25.Match Write Answers

A	B	Answer
1. Mars	b) Red Planet	1 → b
2. Moon	a) Earth Satellite	2 →a
3. Sun	c) Provides light and heat	3 → c
4. Earth	d) Convenient to living organisms	4 →d
5. Stars	e) Flashy objects	5 →e

V. Answers to one-mark questions

26. The sun is the star that gives us light and heat.
27. We live on earth.
28. We see the moon, the stars and sometimes the planets.
29. The moon is the earth's natural satellite.
30. The stars are illuminated by the earth's atmosphere.

VI. Answers to two marks questions

31. Reflects light, has no light of its own
32. The philosopher who emits light itself is the celestial body
33. Earth – the only planet with life; Saturn – composed of gases
34. The Sun and the planets, satellites, perceptions, comets that revolve around it

A system formed by joining

35. About 12,756 kilometers
36. Venus
37. Meteor shower
38. Perceptions (Asteroids)
39. Moon

VII. Answers to three marks questions

40. The Sun is the center of the solar system, the star that gives light and heat to itself. It is very essential for the rise of life on earth. Plants use sunlight for food production and are also a source of solar energy.

41. Earth, Mars, Mercury, Venus, Saturn

42. The stars themselves save light; The planets reflect light.
The stars are very large; The planets are smaller than the star.
The stars look steady; The planets seem to be moving.

******

Lesson - 15 Our India - Physical Diversity

I. Choose the correct option and answer

1. b) Mount Everest
2. c) Northern Plains
3. c) Nilgiri Hills
4. c) New Mangalore
5. a) Sambar

II.Spacing Replies

6. Kanchana Ganga
7. Glacier
8. South
9. Nilgiris
10. Rajasthan
11. Gangotri
12. Costa
13. October
14. camel
15. Ganges

III. Right or False

16. Error
17. OK
18. OK
19. Error
20. Error
21. Error
22. OK
23. Ok
24. OK
25. OK

IV .26. Match the Following

1 → e

2 → a

3 → c

4 → b

5 → d

V. Answers to one-mark questions

27. Anamudi
28. Damodar River
29. Menstrual Monsoon Weather
30. Snow Leopard (Snow Leopard)
31. Gujarat

VI. Answers to two marks questions

32. The soil here is rough and grows rice, wheat, sugar and sugarcane.
33. The Western Ghats are at altitude, unbroken and close to the Arabian Sea; The Eastern Ghats are reduced and broken.
34. The camel has wide legs and fat is stored in Hampi.
35. Bajra and Jowar

VII. Answers to three marks questions.

36. The Himalayas stop the cold waves. The monsoon blocks the winds and causes rain. It is the source of rivers.
37. It is made up of old rocks, rich in mineral wealth, surrounded by the Western and Eastern Ghats.
38. They help in fisheries, port trade, tourism (beaches), agriculture (coconut, fennel).

VIII. Answers to four marks questions

39. Himalaya (mountains), northern plain (for agriculture), plateau (southern part), coastal plain (fishing), Thar Edachuru (sand hills).
40. Animal houses are destroyed, soil collapse occurs. Solution: Planting trees, reducing the use of plastic.
41. Industrial waste, household pollution, Ganpati visarjan. Solution: Swachhta Abhiyan, awareness campaigns.

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Lesson - 16 Our India - Political and Cultural

I. Choose the correct option and answer

1. 7th place
2. Northern Hemisphere and Eastern Hemisphere
3. 28 States and 9 Union Territories
4. Ashoka Simha Pillar at Sarnath
5. Rabindranath Tagore

II.Spacing Replies

6. The year 1947 was the year of our country's independence.
7. Our country is India
8. India is my country
9. Asia is the largest continent in the world
10. India is the largest continent in the world. Asia
11. Located in the southern part of the continent
12. The circle that divides India into northern and southern parts is the Tropic of Cancer
13. The land area surrounded by water is called an island
14. 1956 was the year in which the states were reorganized on the basis of the language spoken by the majority of the people in the respective provinces of India.
15. India is a democratic world.Is the **7th** largest nation
16. New Delhi is the capital of India
17. Bengaluru is the capital of our State of Karnataka
18. 12).States are divided according to language
19. 13)The national flag is a symbol of progress and movement

III. Right or False

20. We Indians are brothers and sisters - ok
21. Sri Lanka is an island nation -ok
22. 10 languages printed on the back of India's official notes - Wrong
23. India is a confluence of many religions - right
24. Our national anthem was written by Kuvempu - wrong
25. To the west of India lies the Indian Ocean – wrong

IV .26.Match Write Answers

A	B
Peninsular	India
Union Territory	Lakshadweep
Yakshagana	Karnataka
National Emblem	Lion Capital

V. Answers to one-mark questions

27. India gained independence on 15 August 1947
28. India ranks 7th in the world in area
29. India has a total coastline of Rs.7516 km
30. The water on three sides and the land on one side is called the peninsula
31. The land area surrounded by water is called an island

32. The states were reorganised in the year 1956 considering the most spoken language in India
33. In India, 22 languages are considered as official languages
34. Kannada is the official language of The State of Karnataka
35. The headquarters of the Central Government is located in New Delhi
36. New Delhi, the capital of India
37. Unity Is The Feeling That We Are All Indians By Respecting All Religions And Living In Peace And Coexistence
38. The colours of our national flag are saffron, white and green
39. Emperor Ashoka built the monolithic pillar at Sarnath
40. Our national anthem was written by Rabindranath Tagore

VI. Answers to two marks questions.

41. In Asia, India extends from eight degrees north to 37 degrees north latitude and 68 degrees east to 97 degrees east longitude
42. The water bodies that surround India are the Bay of Bengal to the east, the Arabian Sea to the west and the Indian Ocean to the south
43. Lakshadweep and Andaman and Nicobar Islands are among the western and eastern waters of India respectively
44. There are 28 states and nine union territories in India
45. Puducherry and the national capital Delhi are union territories that are not under the direct rule of the central government
46. The major religions in India are Hinduism, Islam, Christianity, Sikhism , Jainism, and Buddhism
47. Padma Shri, Padma Bhushan, Padma Vibhushan and Bharat Ratna are awarded to those who have rendered exemplary service in various fields in India

VII. Answers to three marks questions

48. India's neighbours are Pakistan and Afghanistan to the northwest, Nepal Bhutan to the north and China to the east Bangladesh and Myanmar to the east and Sri Lanka to the southeast
49. Andaman and Nicobar and Lakshadweep are the islands of India
50. The 9 Union Territories of India are Jammu and Kashmir, Ladakh, Delhi, Diu Dhaman, Dadra Nagar, Haveli, Chandigarh, Lakshadweep, Puducherry, Andaman and Nicobar Islands.
51. The major dance forms of south Indian states are Bharatanatyam (Tamil Nadu and Karnataka), Kuchipudi (Andhra Pradesh), Kathakali (Kerala), Yakshagana (Karnataka), Theyam (Kerala), Bhootakola (Kerala)

VIII. Answers to four marks questions

52. Our national festivals are as follows
Republic Day, Independence Day, Gandhi Jayanti, Diwali, Holi, Dussehra, Durga Puja, Rakshabandhan, Eid-ul-Fitr, Christmas, Sri Krishna Janmashtami, Makar Sankranti, Baisakhi, Guru Nanak Jayanti, Pongal, Mahashivratri, Buddha Purnima, Ganesh Chaturthi etc.
53. The saffron colour in our national flag signifies sacrifice, white represents peace, and green represents prosperity, along with the middle chakra of dwaja which is a symbol of progress and movement
54.
   1. Kerala : South :: Ladakh : **North**
   2. India : New Delhi :: Karnataka : **Bangalore**
   3. Union Territories : 9 :: States : **28**
   4. Bay of Bengal : East :: Arabian Sea : **West**

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